

**susan g. komen.**  **COMMUNITY**  
PROFILE REPORT 2015



SUSAN G. KOMEN®  
CENTRAL VIRGINIA

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# Executive Summary

## **Introduction to the Community Profile Report**

One of more than 100 Susan G. Komen® Affiliates worldwide, Komen Central Virginia was established in 1999 to support the organization's vision of a world without breast cancer. The Affiliate works collaboratively with donors, volunteers, survivors, and community partners to promote the Komen promise to save lives and end breast cancer forever. From its office in Richmond, Komen Central Virginia serves 61 counties and cities that range from urban to suburban to very rural.

As a grantmaking organization, the Affiliate invests the funds raised through its annual Race for the Cure®, special events, and the generosity of individual and corporate donors, into the Central Virginia community through a competitive, well-established grants program. Since the Affiliate's first Race for the Cure in 1998, Komen Central Virginia has invested over \$5.3 million in community grants and \$1.7 million in Komen's Research Grant Program. Community grant funding supports breast cancer education, screening, and treatment services for those in greatest need.

In an effort to raise awareness about the importance of breast cancer and early detection, Komen Central Virginia provides educational materials and trained volunteer educators to the community. The Affiliate conducts breast self-awareness educational programs across the service area and works in collaboration with several community groups to improve breast health.

Komen Central Virginia serves as an active member of the Cancer Action Coalition of Virginia, working in collaboration with organizations and individuals across the state to focus on activities related to the goals and objectives of the state cancer plan. Through the Central Virginia Breast Cancer Coalition, the Affiliate meets monthly with other Greater Richmond area breast cancer organizations to network, organize an annual survivorship support conference, and share best practices for reducing deaths from breast cancer.

Every four years, Komen Affiliates assess the gaps and needs in the breast cancer continuum of care (CoC) in their service area through data collection and analysis. The resulting Community Profile Report helps the Affiliate align its community outreach, grantmaking, and public policy activities towards the same Mission goal.

By involving a broad range of stakeholders in the assessment, the Affiliate can make the greatest impact on breast cancer by strategically addressing the areas of greatest need. Grant funding decisions will align with the priorities as outlined in this report. Outreach efforts will be focused on communities that the Profile has identified as areas of precedence. Efforts will be made to identify new, or further develop existing, organizational and individual relationships in targeted areas for the purpose of working collaboratively to improve breast health and survivorship.

For more information about Komen Central Virginia, visit the website, [www.komencentralva.org](http://www.komencentralva.org) or call 804-320-1772.

## **Quantitative Data: Measuring Breast Cancer Impact in Local Communities**

Komen Central Virginia Quantitative Data Report (QDR) combines breast cancer statistics and population characteristics from many credible sources and uses county level data to identify the highest priority areas for evidence-based breast cancer programs. The data report prioritizes areas for intervention based on how long it will take those areas to achieve Healthy People 2020 (HP2020) objectives for breast cancer late-stage diagnosis and death rate. (<http://www.healthypeople.gov/2020/default.aspx>).

In the Komen Central Virginia service area, seventeen counties have been characterized as highest priority. Six of the seventeen communities are not likely to meet either the death rate or late-stage diagnosis rate HP2020 targets. Eleven of the seventeen counties and cities are not likely to meet the late-stage incidence rate HP2020. Four additional counties in the service area are characterized as high priority for intervention.

In order to narrow down the pool of possible target areas, the Central Virginia reviewed county level breast cancer statistics from the higher priority areas for intervention and grouped communities with similar demographic data. With the intention of being the most efficient stewards of resources, the Affiliate selected three target areas - the Richmond, Virginia Metropolitan Area and the regions of Piedmont and Southside Virginia - on which to focus its strategic efforts for the next four years.

In the Richmond Metropolitan Area, Richmond City and Chesterfield, Goochland, and Henrico Counties each have a late-stage diagnosis rate higher than the State of Virginia, while Henrico and Richmond have higher death rates than the state. Chesterfield and Henrico Counties have large populations of Hispanic/Latinos and foreign born; Richmond has large populations of Black/African-American, low income, uninsured, unemployed, and low educational attainment women.

According to supplemental data collected from the Virginia Cancer Registry, the medically underserved Piedmont Health District ranks highest in breast cancer death rates among the fourteen districts in the Komen Central Virginia service area. The Komen QDR indicates that the death rate in Prince Edward County is higher than that of Virginia. Amelia, Appomattox, Lunenburg, and Nottoway Counties each have a high rate of late-stage diagnosis. Although breast cancer data were not available for Buckingham, Charlotte, and Cumberland, these counties were included in the target area because they are demographically similar to the others. The female population in rural Piedmont Virginia is older, lower income, less insured, and less educated than the state average.

In Southside Virginia, Halifax and Mecklenburg Counties have high rates of late-stage breast cancer incidence and death. Brunswick County also has a high death rate. If the statistics for Emporia City and Greensville County were combined, the death rate may be similar to that of Brunswick County. This rural, medically underserved area has some of the largest Black/African-American, low income, low educational attainment populations in the Komen Central Virginia service area.

## **Health System and Public Policy Analysis**

A review of the health systems and public policies affecting the three target areas was conducted to identify possible gaps in the breast cancer continuum of care. The Richmond Metropolitan Area offers many accessible, affordable screening and treatment services. A well-developed breast cancer coalition is available for collaboration.

In the rural communities of Piedmont and Southside Virginia, there are limited affordable breast cancer screening, treatment, and survivor support services. There are no known breast cancer coalitions in these communities, but opportunities for new partnerships and enhanced collaboration with Komen grantees exist.

The Every Woman's Life (EWL) Program - Virginia's Breast and Cervical Cancer Early Detection Program (BCCEDP) – provides free screenings to only 12 percent of eligible women, and will only enroll women for treatment under Medicaid if the patient is diagnosed under the program (Virginia Department of Health, 2014). Therefore, eligible women diagnosed outside of EWL must seek alternate treatment options. Low income women who are not citizens of Virginia are ineligible for the EWL program.

Since Virginia has not opted to expand Medicaid, the uninsured population throughout the state remains high. A health insurance exchange has been established to provide coverage to the uninsured, however diagnostic mammograms are not covered under the plans.

The health system and public policy analysis revealed that women in the Richmond Metropolitan area have access to the full breast cancer CoC, yet women are being diagnosed at a later stage and dying more often. A qualitative data analysis should shed light on why women are not accessing available, affordable services in the area.

Rural Piedmont and Southside communities have limited providers and services, requiring many patients to travel at least an hour to access affordable breast cancer screening and treatment. In partnership with breast cancer stakeholder organizations, coalitions, and survivors, Komen Central Virginia will continue to work with communities and the state government towards ensuring quality care for all.

## **Qualitative Data: Ensuring Community Input**

The quantitative data analysis, coupled with the findings from the health systems analysis, elicited questions about whether women in each target area were proceeding satisfactorily through the breast cancer continuum of care (CoC). A qualitative analysis of health care provider and community member perspectives revealed more information about the most vulnerable populations, access to care, effective educational efforts, gaps in the CoC, and survivor support.

Qualitative data from interviews and focus groups conducted in the three target areas revealed several major themes. In the Richmond Metropolitan Area, there appears to be a lack of knowledge among women about the importance of breast care and the available, affordable services. Most health care providers felt that once a woman entered the breast cancer CoC, she

advanced in a timely manner. Transportation for the uninsured within the suburbs and from the surrounding counties to services in the City of Richmond was cited as a barrier to care. Black/African-American, Hispanic/Latino, foreign born, low income, and uninsured women were considered most at risk for not receiving breast care.

In a landscape of limited educational efforts and health care services, the communities of Piedmont and Southside Virginia indicated that there is a lack of knowledge among residents and some health care providers of the importance of breast care and available, affordable services. Because women must often travel one to two hours from their homes to access affordable screening and/or specialty treatment services, transportation was a notable barrier to care. Fragmented care prompted key informants to cite patient navigation as a critical need for these two rural communities. Providers and focus group participants believed that low income and Black/African-American women were the most vulnerable populations.

All target area communities shared that some women were enrolling in the new health insurance exchange, but more often it was noted that Virginians found the premiums “too high” or the process “too confusing.” Financial concerns and the fear of being diagnosed with breast cancer were also common themes across all target areas.

### **Mission Action Plan**

After a comprehensive evaluation of the data, prioritization of needs, and consideration of the capacity of Komen Central Virginia to impact breast cancer, a mission action plan was developed for each of the three target areas. A problem statement and an outline of the strategic plan for each target area follows.

#### *Richmond, Virginia Metropolitan Area*

The late-stage diagnosis rates for breast cancer in Richmond City and in Chesterfield, Goochland, and Henrico Counties exceed the rate for Virginia; Richmond and Henrico have higher death rates than that of the state. Large populations of Black/African-American, low income, and low educational attainment women in Richmond and large populations of Latinas and foreign born residents in Chesterfield and Henrico may not be aware of the many available, affordable breast care resources in the area. Utilization of breast cancer screening services is a concern.

- Priority 1: In an effort to reduce the incidence of breast cancer late-stage diagnosis and deaths, increase the availability of education programs and screening and diagnostic mammography for uninsured women in the Richmond Metropolitan Area.
  - Objective 1: Beginning with the FY16 Request for Application, include Affiliate grant funding priority for screening and diagnostic mammograms for uninsured women in the Richmond Metropolitan area, especially those of Black/African-American and foreign descent.
  - Objective 2: In collaboration with community partners, conduct one Komen Breast Health Basics program in Spanish in the City of Richmond and in each of the counties of Chesterfield and Henrico and by 2018.

- Priority 2: Increase culturally appropriate breast cancer education for Blacks/African-Americans and foreign born women in an effort to raise awareness of the importance of breast care and the availability of affordable breast health resources.
  - Objective 1: Beginning with the FY16 Request for Application, include Affiliate grant funding priority for evidence-based, culturally appropriate educational programs for Blacks/African-Americans and foreign born residents in the Richmond Metropolitan Area.
  - Objective 2: In collaboration with community partners, provide or support at least one evidence-based, peer education program in the City of Richmond and in each of the counties of Chesterfield and Henrico by 2018.

### *Piedmont Virginia*

Breast cancer statistics for Piedmont Virginia reveal high rates of death from breast cancer and late-stage diagnosis in an area of limited affordable screening and treatment. A large population of low income, uninsured, and low educational attainment women live in this rural, medically underserved region. Utilization of breast cancer screening services and access to treatment are concerns.

- Priority 1: In an effort to reduce the incidence of breast cancer late-stage diagnosis and deaths, increase the availability of education programs and screening and diagnostic mammography for uninsured women in Piedmont Virginia.
  - Objective 1: Beginning with the FY16 Request for Application, include Affiliate grant funding priority for screening and diagnostic mammograms for uninsured women in Piedmont Virginia.
  - Objective 2: In collaboration with community partners, conduct one Komen Breast Health Basics program in Piedmont Virginia by 2018.
- Priority 2: Improve patient navigation through the breast cancer continuum of care in an effort to reduce the incidence of breast cancer late-stage diagnosis and deaths.
  - Objective 1: Beginning with the FY16 Request for Application, establish Affiliate grant funding priority for educational outreach, case management, and survivor support in Piedmont Virginia.
  - Objective 2: In collaboration with community partners, provide three evidence-based peer education programs in the Piedmont target area by FY17.
  - Objective 3: By 2018, in collaboration with a community partner, provide one education program - preferably with continuing medical education (CME) credit - to health care providers in Piedmont Virginia regarding breast cancer screening guidelines and available resources (e.g., Every Woman's Life Programs in other areas).

### *Southside Virginia*

Breast cancer statistics for Southside Virginia reveal high rates of breast cancer death and late-stage diagnosis in an area of limited affordable screening and treatment. There are large populations of Black/African-American, low income, and less educated women living in the target area. Utilization of screening services and access to treatment are concerns.

- Priority 1: In an effort to reduce the incidence of breast cancer late-stage diagnosis and deaths, increase the availability of education programs and screening and diagnostic mammography for uninsured women in Southside Virginia.
  - Objective 1: Beginning with the FY16 Request for Application, include Affiliate grant funding priority for screening and diagnostic mammograms for uninsured women in Southside Virginia.
  - Objective 2: In collaboration with community partners, conduct one Komen Breast Health Basics program in each of the counties of Brunswick, Halifax, and Mecklenburg by 2017.
- Priority 2: Improve patient navigation through the breast cancer continuum of care in an effort to reduce the incidence of breast cancer late-stage diagnosis and deaths.
  - Objective 1: Beginning with the FY16 Request for Application, establish Affiliate grant funding priority for educational outreach, case management, and survivor support in Southside Virginia.
  - Objective 2: In collaboration with community partners, provide one evidence-based peer education program in each of the counties of Halifax and Mecklenburg by 2017. Continue to support existing efforts in Emporia/Greenville.
  - Objective 3: By 2018, in collaboration with community partners, provide one education program - preferably with continuing medical education (CME) credits - to health care providers in Southside Virginia regarding breast cancer screening guidelines and available resources (e.g., Every Woman's Life Program).

**Disclaimer:** Comprehensive data for the Executive Summary can be found in the 2015 Susan G. Komen Central Virginia Community Profile Report.

# Introduction

## **Affiliate History**

Susan G. Komen® is the world's largest breast cancer organization, funding more breast cancer research than any other nonprofit while providing real-time help to those facing the disease. Komen was founded by Nancy G. Brinker, who promised her sister, Susan G. Komen, that she would end the disease that claimed Suzy's life. Susan G. Komen® Central Virginia is working to better the lives of those who face breast cancer in the local community.

In 1998, Jennifer Norvell Saunders of Richmond organized the first Central Virginia Race for the Cure® in memory of her mother Joanne. Joanne lost her battle with breast cancer after a second recurrence of her disease. Jennifer, her family, and friends planned the first Central Virginia Race for the Cure® with the hope that 50 people would join them. To Jennifer's surprise, over 1,200 Race participants gathered at the starting line that Mother's Day weekend.

Komen Central Virginia was established in 1999 to support Komen's vision of a world without breast cancer and to promote the promise to save lives and end breast cancer forever. In 2010, the Central Virginia Race for the Cure was named "Favorite Charity Event" by readers of *Richmond Magazine*.

As a grantmaking organization, the Affiliate invests the funds raised through Race for the Cure, special events, and the generosity of individual and corporate donors, into the Central Virginia community through a competitive, well-established grants program. Since 1998, the Komen Central Virginia has invested over \$5.3 million in community grants and \$1.7 million in Komen's Research Programs. Community grant funding supports breast cancer education, screening, and treatment services for those in greatest need.

In an effort to raise awareness about the importance of breast cancer and early detection, Komen Central Virginia provides educational materials and trained volunteer Educators to the community. The Affiliate conducts breast self-awareness educational programs across the service area and works in collaboration with several community groups to improve breast health. Komen Central Virginia was one of the original partners of Paint It Pink Petersburg, organized in 2008 to address breast cancer deaths in the City of Petersburg, Virginia.

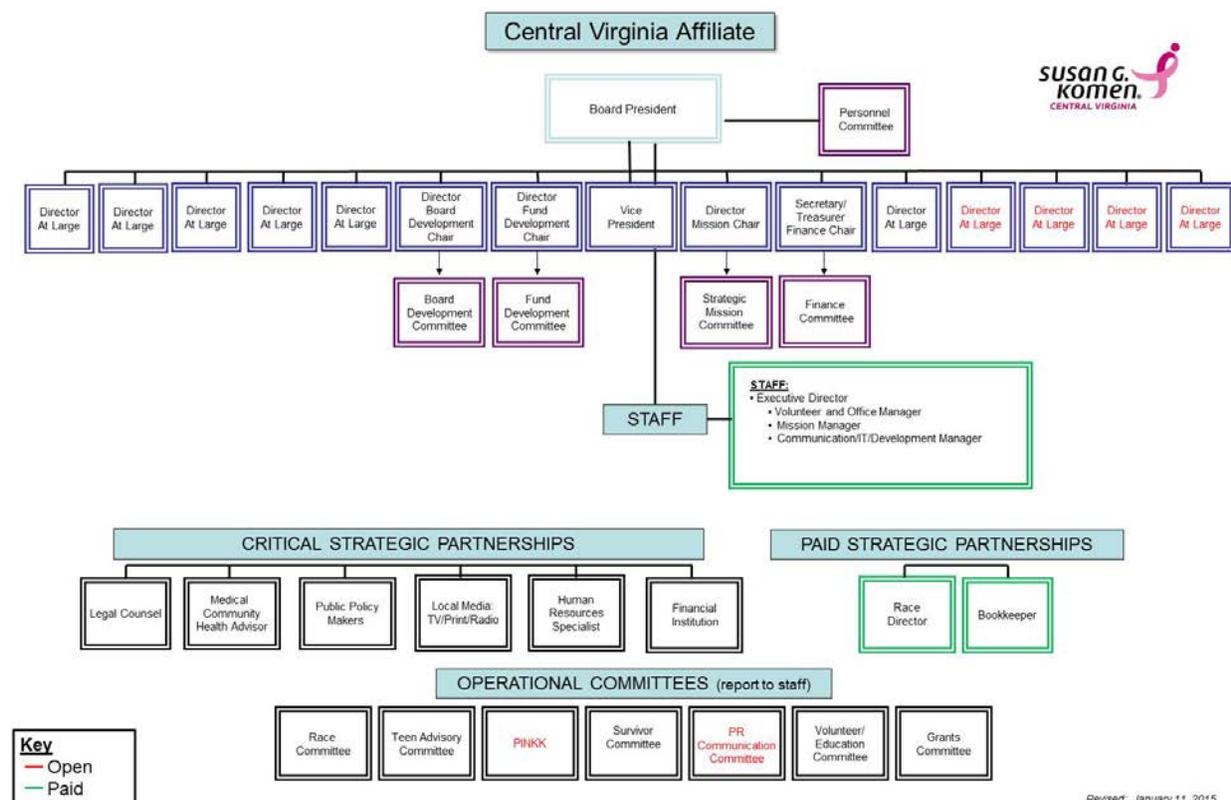
Komen Central Virginia serves as an active member of the Cancer Action Coalition of Virginia, working in collaboration with organizations and individuals across the state to focus on activities related to the goals and objectives of the state cancer plan. Through the Central Virginia Breast Cancer Coalition, the Affiliate meets monthly with other Greater Richmond area breast cancer organizations to network, organize an annual survivorship support conference, and share best practices for reducing deaths from breast cancer. The Affiliate informs legislators and advocates for breast health issues with other breast cancer organizations at the Virginia General Assembly.

For more information about Komen Central Virginia, visit the website, [www.komencentralva.org](http://www.komencentralva.org) or call 804-320-1772.

## Affiliate Organizational Structure

Komen Central Virginia is governed by 11 volunteer Board members. The Board includes a President, Vice President, Treasurer and Secretary and eight at-large members. The Board provides oversight of an Executive Director who supervises three Affiliate staff members (Director of Community Health Programs, Director of Development, Marketing and Information and Volunteer and Operations Coordinator).

An additional corps of more than 400 volunteers serves on operational committees and ensures the success of Affiliate fundraising events including the annual Race for the Cure. Board committees include Board Development, Finance, Fund Development, and Strategic Mission. Affiliate operational committees include Education/Volunteers, Grants, Race, Survivor, and Teen Advisory. Figure 1.1 represents an organizational chart of Komen Central Virginia.



**Figure 1.1.** Susan G. Komen Central Virginia organizational chart

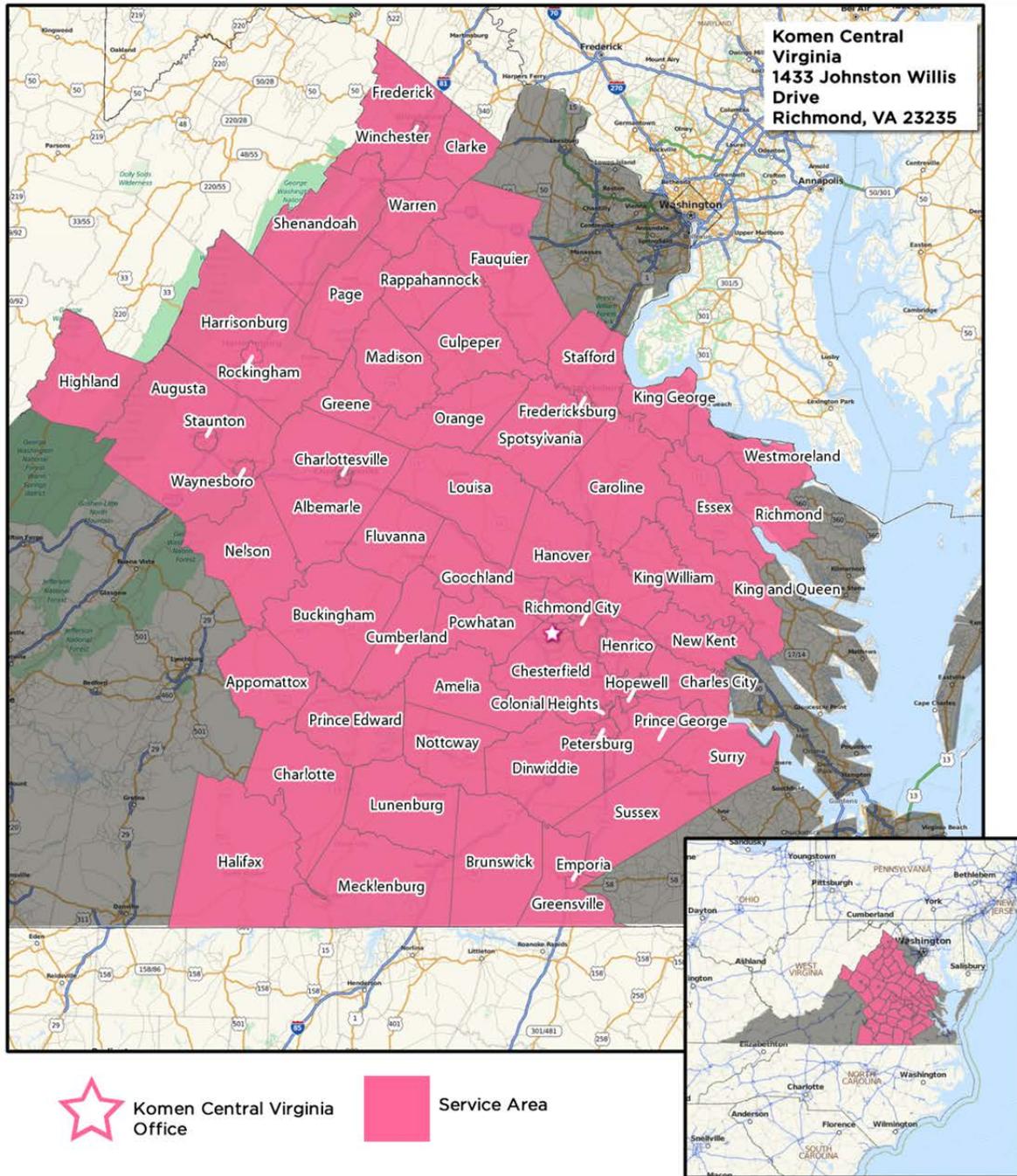
## Affiliate Service Area

Komen Central Virginia covers a large geographical area, consisting of 61 counties and cities that range from urban to suburban to very rural. Komen Central Virginia service area includes 20,253 square miles with a total population of 7,078,515. This represents 47.0 percent of the entire commonwealth land area and almost 33 percent of the entire state population (US Census Bureau, 2000). A map of the service area appears in Figure 1.2.

The largest metropolitan area in the Central Virginia service footprint includes the capital City of Richmond and the counties of Henrico and Chesterfield. A comprehensive transportation and ride-sharing system is available to residents of this urban/suburban area. The cities of Charlottesville, Fredericksburg, Petersburg, and Winchester have fixed route bus systems; a ride-sharing program and a rural transportation provider are available in Charlottesville. The remaining cities and counties have limited, or no, public transportation and ride-sharing (Virginia Department of Rail and Transportation).

The total female population of Komen Central Virginia is 1,325,462. More than 26 percent of the Central Virginia female population is Black/African-American, which is substantially larger than the proportion of Black/African-American females in the US (14.1 percent). The White, Asian and Pacific Islander (API), American Indian and Alaska Native (AIAN), and Hispanic/Latina female populations are proportionately smaller than the US as a whole. More than 15 percent of the population in the Central Virginia service area has less than a high school education, which is greater than that of the US (14.6 percent). Compared to the US, the Affiliate service area has a substantially smaller percentage of people who are foreign born (6.1 percent). Thirty seven percent of people live in rural areas, and 33.7 percent live in medically underserved areas; both groups are proportionately larger in the Komen Central Virginia service area than in the US as a whole (Susan G. Komen, 2014).

# KOMEN CENTRAL VIRGINIA SERVICE AREA



\*As of July 2014, Surry County became a part of the Susan G. Komen Tidewater Affiliate.

**Figure 1.2.** Susan G. Komen Central Virginia service area

## **Purpose of the Community Profile Report**

An effective Community Profile will help Komen Central Virginia align its community outreach, grantmaking, and public policy activities towards the same Mission goal.

The Community Profile will allow the Affiliate to:

- Include a broad range of people and stakeholders in the Affiliate's work and become more diverse
- Fund, educate, and build awareness in the areas of greatest need
- Make data-driven decisions about how to use its resources in the best way – to make the greatest impact
- Strengthen relationships with sponsors by clearly communicating the breast health and breast cancer needs of the community
- Provide information to public policymakers to assist in focusing their work
- Strategize the direction of marketing and outreach programs toward areas of greatest need
- Create synergy between mission-related strategic plans and operational activities

For the next four years, Komen Central Virginia will use the 2015 Community Profile to strategically address breast cancer gaps and needs identified in the service area. Grant funding decisions will align with the priorities as outlined in this report. Outreach efforts will be focused on communities that the Community Profile has identified as areas of precedence. Efforts will be made to identify new, or further develop existing, organizational and individual relationships in targeted areas for the purpose of working collaboratively to improve breast health and survivorship.

The 2015 Community Profile Report will be posted to the Komen Central Virginia website and announced via email to the Affiliate constituency. All individuals and organizations who participated in the assessment will be notified by email that the report is complete and will be offered a hard copy. Formal presentations will be made to the members of the Central Virginia Breast Cancer Coalition, to potential grant applicants during the Affiliate technical assistance workshop, to community groups in each of the target areas, and to others as requested.

# Quantitative Data: Measuring Breast Cancer Impact in Local Communities

## Quantitative Data Report

### Introduction

The purpose of the quantitative data report for Susan G. Komen® Central Virginia is to combine evidence from many credible sources and use the data to identify the highest priority areas for evidence-based breast cancer programs.

The data provided in the report are used to identify priorities within the Affiliate's service area based on estimates of how long it would take an area to achieve Healthy People 2020 objectives for breast cancer late-stage diagnosis and death rates (<http://www.healthypeople.gov/2020/default.aspx>).

The following is a summary of Komen Central Virginia's Quantitative Data Report. For a full report please contact the Affiliate.

### Breast Cancer Statistics

#### Incidence rates

The breast cancer incidence rate shows the frequency of new cases of breast cancer among women living in an area during a certain time period (Table 2.1). Incidence rates may be calculated for all women or for specific groups of women (e.g. for Asian/Pacific Islander women living in the area).

The female breast cancer incidence rate is calculated as the number of females in an area who were diagnosed with breast cancer divided by the total number of females living in that area. Incidence rates are usually expressed in terms of 100,000 people. For example, suppose there are 50,000 females living in an area and 60 of them are diagnosed with breast cancer during a certain time period. Sixty out of 50,000 is the same as 120 out of 100,000. So the female breast cancer incidence rate would be reported as 120 per 100,000 for that time period.

When comparing breast cancer rates for an area where many older people live to rates for an area where younger people live, it's hard to know whether the differences are due to age or whether other factors might also be involved. To account for age, breast cancer rates are usually adjusted to a common standard age distribution. Using age-adjusted rates makes it possible to spot differences in breast cancer rates caused by factors other than differences in age between groups of women.

To show trends (changes over time) in cancer incidence, data for the annual percent change in the incidence rate over a five-year period were included in the report. The annual percent change is the average year-to-year change of the incidence rate. It may be either a positive or negative number.

- A negative value means that the rates are getting lower.
- A positive value means that the rates are getting higher.

- A positive value (rates getting higher) may seem undesirable—and it generally is. However, it's important to remember that an increase in breast cancer incidence could also mean that more breast cancers are being found because more women are getting mammograms. So higher rates don't necessarily mean that there has been an increase in the occurrence of breast cancer.

### **Death rates**

The breast cancer death rate shows the frequency of death from breast cancer among women living in a given area during a certain time period (Table 2.1). Like incidence rates, death rates may be calculated for all women or for specific groups of women (e.g. Black/African-American women).

The death rate is calculated as the number of women from a particular geographic area who died from breast cancer divided by the total number of women living in that area. Death rates are shown in terms of 100,000 women and adjusted for age.

Data are included for the annual percent change in the death rate over a five-year period.

The meanings of these data are the same as for incidence rates, with one exception. Changes in screening don't affect death rates in the way that they affect incidence rates. So a negative value, which means that death rates are getting lower, is always desirable. A positive value, which means that death rates are getting higher, is always undesirable.

### **Late-stage incidence rates**

For this report, late-stage breast cancer is defined as regional or distant stage using the Surveillance, Epidemiology and End Results (SEER) Summary Stage definitions (<http://seer.cancer.gov/tools/ssm/>). State and national reporting usually uses the SEER Summary Stage. It provides a consistent set of definitions of stages for historical comparisons.

The late-stage breast cancer incidence rate is calculated as the number of women with regional or distant breast cancer in a particular geographic area divided by the number of women living in that area (Table 2.1). Late-stage incidence rates are shown in terms of 100,000 women and adjusted for age.

**Table 2.1.** Female breast cancer incidence rates and trends, death rates and trends, and late-stage rates and trends.

Population Group	Incidence Rates and Trends				Death Rates and Trends			Late-stage Rates and Trends		
	Female Population (Annual Average)	# of New Cases (Annual Average)	Age-adjusted Rate/ 100,000	Trend (Annual Percent Change)	# of Deaths (Annual Average)	Age-adjusted Rate/ 100,000	Trend (Annual Percent Change)	# of New Cases (Annual Average)	Age-adjusted Rate/ 100,000	Trend (Annual Percent Change)
US	154,540,194	198,602	122.1	-0.2%	40,736	22.6	-1.9%	70,218	43.7	-1.2%
HP2020	.	-	-	-	-	20.6*	-	-	41.0*	-
Virginia	3,993,827	5,420	124.8	1.3%	1,074	24.0	-1.9%	1,896	43.9	0.1%
Komen Central Virginia Service Area	1,325,462	1,861	126.5	0.4%	376	24.5	NA	660	45.4	0.3%
White	972,339	1,421	125.2	0.5%	264	22.0	NA	480	43.1	0.5%
Black/African-American	311,652	400	129.7	0.0%	108	34.7	NA	167	54.2	0.5%
American Indian/Alaska Native (AIAN)	6,237	SN	SN	SN	SN	SN	SN	SN	SN	SN
Asian Pacific Islander (API)	35,235	19	67.5	-3.2%	3	12.3	NA	7	24.0	-10.1%
Non-Hispanic/ Latina	1,265,236	1,831	126.7	0.4%	370	24.5	NA	645	45.4	0.4%
Hispanic/ Latina	60,227	30	114.8	-2.9%	SN	SN	SN	14	51.2	-5.8%
Albemarle County - VA	50,154	75	134.2	-2.7%	11	18.1	-2.6%	20	37.3	4.9%
Amelia County - VA	6,375	11	134.1	3.5%	SN	SN	SN	5	67.4	18.7%
Appomattox County - VA	7,485	11	118.0	5.5%	SN	SN	SN	5	51.4	17.0%
Augusta County - VA	36,087	56	122.1	3.2%	10	20.5	-2.9%	17	40.0	-3.4%
Brunswick County - VA	8,349	12	112.2	1.2%	4	31.1	-1.6%	4	37.3	3.6%
Buckingham County - VA	7,538	7	72.8	-0.3%	SN	SN	SN	SN	SN	SN
Caroline County - VA	14,078	18	117.2	-7.3%	4	26.5	NA	8	49.4	2.3%
Charles City County - VA	3,638	7	145.6	-12.7%	3	66.3	NA	3	79.0	-20.5%
Charlotte County - VA	6,465	9	100.8	-2.5%	SN	SN	SN	SN	SN	SN
Chesterfield County - VA	159,618	217	133.7	0.6%	34	20.5	-8.6%	78	47.3	-4.3%
Clarke County - VA	7,054	12	126.5	0.6%	SN	SN	SN	4	39.3	NA
Culpeper County - VA	22,478	32	136.5	-6.2%	7	29.8	-0.6%	13	54.9	-8.5%
Cumberland County - VA	5,071	8	126.8	-5.1%	SN	SN	SN	SN	SN	SN
Dinwiddie County - VA	13,958	18	108.9	-9.8%	5	32.6	0.0%	6	38.7	-3.6%
Essex County - VA	5,736	9	112.9	11.6%	SN	SN	SN	SN	SN	SN
Fauquier County - VA	32,694	46	126.4	-1.6%	10	26.6	-2.7%	15	40.1	-1.1%
Fluvanna County - VA	13,665	20	126.2	-6.5%	3	21.0	-3.7%	6	37.5	11.5%
Frederick County - VA	38,068	51	124.4	4.4%	11	26.1	-2.3%	17	42.0	12.8%
Goochland County - VA	10,657	18	130.6	2.4%	SN	SN	SN	9	65.9	1.4%
Greene County - VA	9,175	10	98.6	-7.6%	SN	SN	SN	4	42.8	-17.0%
Greensville County - VA	4,528	7	133.7	-3.6%	SN	SN	SN	SN	SN	SN
Halifax County - VA	18,961	34	133.5	4.0%	8	27.2	-1.0%	10	43.4	-6.9%
Hanover County - VA	50,438	76	129.1	3.1%	13	21.6	-1.0%	26	43.8	0.8%

Population Group	Female Population (Annual Average)	Incidence Rates and Trends			Death Rates and Trends			Late-stage Rates and Trends		
		# of New Cases (Annual Average)	Age-adjusted Rate/ 100,000	Trend (Annual Percent Change)	# of Deaths (Annual Average)	Age-adjusted Rate/ 100,000	Trend (Annual Percent Change)	# of New Cases (Annual Average)	Age-adjusted Rate/ 100,000	Trend (Annual Percent Change)
Henrico County - VA	159,215	230	132.6	4.4%	49	26.7	-1.1%	82	47.7	3.2%
Highland County - VA	1,201	SN	SN	SN	SN	SN	SN	SN	SN	SN
King George County - VA	11,345	14	133.2	-0.7%	SN	SN	SN	5	46.8	-6.3%
King William County - VA	7,944	13	144.9	14.9%	SN	SN	SN	4	47.5	NA
King and Queen County - VA	3,462	6	116.5	-11.2%	SN	SN	SN	SN	SN	SN
Louisa County - VA	16,331	24	120.7	9.9%	4	21.6	-4.5%	7	36.4	15.9%
Lunenburg County - VA	6,047	10	112.5	-1.9%	SN	SN	SN	4	48.9	17.8%
Madison County - VA	6,848	10	109.2	0.6%	SN	SN	SN	4	38.7	NA
Mecklenburg County - VA	16,519	31	130.3	4.1%	7	25.8	-2.8%	12	53.0	3.0%
Nelson County - VA	7,688	15	142.4	-5.5%	SN	SN	SN	5	46.4	1.5%
New Kent County - VA	8,685	15	148.4	-0.1%	SN	SN	SN	4	40.4	-9.2%
Nottoway County - VA	7,468	14	139.9	-2.0%	SN	SN	SN	5	54.0	1.6%
Orange County - VA	16,701	25	119.7	-0.9%	6	26.2	-1.2%	9	45.3	12.6%
Page County - VA	12,213	17	108.1	-4.5%	SN	SN	SN	8	52.6	-2.1%
Powhatan County - VA	12,720	20	142.6	-15.2%	SN	SN	SN	7	47.9	-10.4%
Prince Edward County - VA	11,420	17	137.5	-6.9%	4	35.3	0.5%	5	45.2	-15.0%
Prince George County - VA	15,991	23	138.8	-2.4%	3	20.1	NA	7	45.6	-2.5%
Rappahannock County - VA	3,701	7	131.3	3.4%	SN	SN	SN	SN	SN	SN
Richmond County - VA	4,052	6	102.4	-10.6%	SN	SN	SN	SN	SN	SN
Rockingham County - VA	38,115	52	113.0	0.0%	9	18.0	-1.3%	21	45.8	-8.3%
Shenandoah County - VA	21,179	34	121.0	10.2%	8	23.6	-1.0%	12	46.3	18.0%
Spotsylvania County - VA	61,204	70	120.5	-5.5%	14	24.8	-0.8%	29	49.1	1.9%
Stafford County - VA	61,976	62	115.3	-4.0%	14	28.3	-0.9%	22	40.6	2.6%
Surry County - VA**	3,546	5	115.2	-2.6%	SN	SN	SN	SN	SN	SN
Sussex County - VA	5,034	9	139.4	-13.8%	SN	SN	SN	5	80.5	-8.4%
Warren County - VA	18,571	27	132.9	-9.9%	7	34.1	-2.5%	9	43.3	-3.3%
Westmoreland County - VA	8,806	15	118.8	-11.5%	3	22.9	-0.5%	4	38.2	-12.3%
Charlottesville City - VA	22,163	27	142.2	14.5%	5	27.8	-3.2%	9	45.6	27.9%
Colonial Heights City - VA	9,396	14	113.3	15.0%	SN	SN	SN	5	41.2	-3.8%
Emporia City - VA	3,155	4	119.6	-29.4%	SN	SN	SN	SN	SN	SN
Fredericksburg City - VA	12,653	16	152.3	13.9%	SN	SN	SN	7	64.4	15.2%
Harrisonburg City - VA	25,305	21	119.3	30.0%	3	17.3	-3.0%	7	39.0	9.6%
Hopewell City - VA	12,025	17	124.5	2.3%	SN	SN	SN	7	53.3	13.9%
Petersburg City - VA	17,293	32	149.3	-0.4%	5	23.6	-2.1%	11	54.4	-3.4%
Richmond City - VA	106,072	144	134.1	-1.1%	37	31.6	-1.4%	57	54.4	-2.7%
Staunton City - VA	12,977	19	107.4	4.4%	SN	SN	SN	4	30.3	18.6%

Population Group	Female Population (Annual Average)	Incidence Rates and Trends			Death Rates and Trends			Late-stage Rates and Trends		
		# of New Cases (Annual Average)	Age-adjusted Rate/ 100,000	Trend (Annual Percent Change)	# of Deaths (Annual Average)	Age-adjusted Rate/ 100,000	Trend (Annual Percent Change)	# of New Cases (Annual Average)	Age-adjusted Rate/ 100,000	Trend (Annual Percent Change)
Waynesboro City - VA	10,970	17	123.5	-0.6%	5	31.2	NA	6	43.9	-8.1%
Winchester City - VA	13,199	17	109.4	13.1%	7	39.1	NA	6	39.7	0.8%

\*Target as of the writing of this report.

\*\*As of July 2014, Surry County became part of the Susan G. Komen Tidewater Affiliate service area.

NA – data not available.

SN – data suppressed due to small numbers (15 cases or fewer for the 5-year data period).

Data are for years 2005-2009 for incidence and late-stage data and 2006-2010 death data.

Rates are in cases or deaths per 100,000.

Age-adjusted rates are adjusted to the 2000 US standard population.

Source of incidence and late-stage data: North American Association of Central Cancer Registries (NAACCR) – Cancer in North America (CINA) Deluxe Analytic File.

Source of death rate data: Centers for Disease Control and Prevention (CDC) – National Center for Health Statistics (NCHS) mortality data in SEER\*Stat.

Source of death trend data: National Cancer Institute (NCI)/CDC State Cancer Profiles.

### ***Incidence rates and trends summary***

Overall, the breast cancer incidence rate in the Komen Central Virginia service area was slightly higher than that observed in the US as a whole and the incidence trend was higher than the US as a whole. The incidence rate and trend of the Affiliate service area were not significantly different than that observed for the State of Virginia.

For the United States, breast cancer incidence in Black/African-Americans/African-Americans is lower than in Whites overall. The most recent estimated breast cancer incidence rates for Asians and Pacific Islanders (APIs) and American Indians and Alaska Natives (AIANs) were lower than for Non-Hispanic Whites and Black/African-Americans/African-Americans. The most recent estimated incidence rates for Hispanics/Latinas were lower than for Non-Hispanic Whites and Black/African-Americans/African-Americans. For the Affiliate service area as a whole, the incidence rate was slightly higher among Black/African-Americans/African-Americans than Whites and lower among APIs than Whites. There were not enough data available within the Affiliate service area to report on AIANs so comparisons cannot be made for this racial group. The incidence rate among Hispanics/Latinas was lower than among Non-Hispanics/Latinas.

The incidence rate was significantly lower in the following county:

- Buckingham County

**Significantly less favorable trends** in breast cancer incidence rates were observed in the following county:

- Harrisonburg City

The rest of the counties had incidence rates and trends that were not significantly different than the Affiliate service area as a whole or did not have enough data available.

It's important to remember that an increase in breast cancer incidence could also mean that more breast cancers are being found because more women are getting mammograms.

### ***Death rates and trends summary***

Overall, the breast cancer death rate in the Komen Central Virginia service area was slightly higher than that observed in the US as a whole and the death rate trend was not available for comparison with the US as a whole. The death rate of the Affiliate service area was not significantly different than that observed for the State of Virginia.

For the United States, breast cancer death rates in Black/African-Americans/African-Americans are substantially higher than in Whites overall. The most recent estimated breast cancer death rates for APIs and AIANs were lower than for Non-Hispanic Whites and Black/African-Americans/African-Americans. The most recent estimated death rates for Hispanics/Latinas were lower than for Non-Hispanic Whites and Black/African-Americans/African-Americans. For the Affiliate service area as a whole, the death rate was higher among Black/African-Americans/African-Americans than Whites and lower among APIs than Whites. There were not enough data available within the Affiliate service area to report on AIANs so comparisons cannot be made for this racial group. Also, there were not enough data available within the Affiliate service area to report on Hispanics/Latinas so comparisons cannot be made for this group.

The following counties had a death rate **significantly higher** than the Affiliate service area as a whole:

- Charles City County
- Richmond City
- Winchester City

Significantly more favorable trends in breast cancer death rates were observed in the following county:

- Chesterfield County

The rest of the counties had death rates and trends that were not significantly different than the Affiliate service area as a whole or did not have enough data available.

### ***Late-stage incidence rates and trends summary***

Overall, the breast cancer late-stage incidence rate in the Komen Central Virginia service area was slightly higher than that observed in the US as a whole and the late-stage incidence trend was higher than the US as a whole. The late-stage incidence rate and trend of the Affiliate service area were not significantly different than that observed for the State of Virginia.

For the United States, late-stage incidence rates in Black/African-Americans/African-Americans are higher than among Whites. Hispanics/Latinas tend to be diagnosed with late-stage breast cancers more often than Whites. For the Affiliate service area as a whole, the late-stage incidence rate was higher among Black/African-Americans/African-Americans than Whites and lower among APIs than Whites. There were not enough data available within the Affiliate service area to report on AIANs so comparisons cannot be made for this racial group. The late-stage incidence rate among Hispanics/Latinas was higher than among Non-Hispanics/Latinas.

The following counties had a late-stage incidence rate **significantly higher** than the Affiliate service area as a whole:

- Goochland County
- Sussex County
- Richmond City

**Significantly less favorable trends** in breast cancer late-stage incidence rates were observed in the following counties:

- Louisa County

The rest of the counties had late-stage incidence rates and trends that were not significantly different than the Affiliate service area as a whole or did not have enough data available.

### Mammography Screening

Getting regular screening mammograms (and treatment if diagnosed) lowers the risk of dying from breast cancer. Screening mammography can find breast cancer early, when the chances of survival are highest. Table 2.2 shows some screening recommendations among major organizations for women at average risk.

**Table 2.2.** Breast cancer screening recommendations for women at average risk.

American Cancer Society	National Cancer Institute	National Comprehensive Cancer Network	US Preventive Services Task Force
Mammography every year starting at age 40	Mammography every 1-2 years starting at age 40	Mammography every year starting at age 40	Informed decision-making with a health care provider ages 40-49  Mammography every 2 years ages 50-74

Because having mammograms lowers the chances of dying from breast cancer, it's important to know whether women are having mammograms when they should. This information can be used to identify groups of women who should be screened who need help in meeting the current recommendations for screening mammography. The Centers for Disease Control and Prevention's (CDC) Behavioral Risk Factors Surveillance System (BRFSS) collected the data on mammograms that are used in this report. The data come from interviews with women age 50 to 74 from across the United States. During the interviews, each woman was asked how long it has been since she has had a mammogram. BRFSS is the best and most widely used source available for information on mammography usage among women in the United States, although it does not collect data matching Komen screening recommendations (i.e. from women age 40 and older). The proportions in Table 2.3 are based on the number of women age 50 to 74 who reported in 2012 having had a mammogram in the last two years.

The data have been weighted to account for differences between the women who were interviewed and all the women in the area. For example, if 20.0 percent of the women interviewed are Hispanic/Latina, but only 10.0 percent of the total women in the area are Hispanic/Latina, weighting is used to account for this difference.

The report uses the mammography screening proportion to show whether the women in an area are getting screening mammograms when they should. Mammography screening proportion is calculated from two pieces of information:

- The number of women living in an area whom the BRFSS determines should have mammograms (i.e. women age 50 to 74).
- The number of these women who actually had a mammogram during the past two years.

The number of women who had a mammogram is divided by the number who should have had one. For example, if there are 500 women in an area who should have had mammograms and 250 of those women actually had a mammogram in the past two years, the mammography screening proportion is 50.0 percent.

Because the screening proportions come from samples of women in an area and are not exact, Table 2.3 includes confidence intervals. A confidence interval is a range of values that gives an idea of how uncertain a value may be. It's shown as two numbers—a lower value and a higher one. It is very unlikely that the true rate is less than the lower value or more than the higher value.

For example, if screening proportion was reported as 50.0 percent, with a confidence interval of 35.0 to 65.0 percent, the real rate might not be exactly 50.0 percent, but it's very unlikely that it's less than 35.0 or more than 65.0 percent.

In general, screening proportions at the county level have fairly wide confidence intervals. The confidence interval should always be considered before concluding that the screening proportion in one county is higher or lower than that in another county.

**Table 2.3.** Proportion of women ages 50-74 with screening mammography in the last two years, self-report.

Population Group	# of Women Interviewed (Sample Size)	# w/ Self-Reported Mammogram	Proportion Screened (Weighted Average)	Confidence Interval of Proportion Screened
US	174,796	133,399	77.5%	77.2%-77.7%
Virginia	2,644	2,156	79.8%	77.8%-81.7%
Komen Central Virginia Service area	825	667	80.5%	76.9%-83.6%
White	672	529	78.3%	74.4%-81.8%
Black/African-American	123	113	92.5%	83.6%-96.7%
AIAN	SN	SN	SN	SN
API	SN	SN	SN	SN

<b>Population Group</b>	<b># of Women Interviewed (Sample Size)</b>	<b># w/ Self-Reported Mammogram</b>	<b>Proportion Screened (Weighted Average)</b>	<b>Confidence Interval of Proportion Screened</b>
Hispanic/ Latina	SN	SN	SN	SN
Non-Hispanic/ Latina	805	651	80.5%	77.0%-83.7%
Albemarle County - VA	31	28	92.1%	74.6%-97.9%
Amelia County - VA	SN	SN	SN	SN
Appomattox County - VA	SN	SN	SN	SN
Augusta County - VA	35	27	77.0%	58.5%-88.8%
Brunswick County - VA	SN	SN	SN	SN
Buckingham County - VA	17	14	63.2%	39.7%-81.8%
Caroline County - VA	10	9	83.1%	46.2%-96.6%
Charles City County - VA	SN	SN	SN	SN
Charlotte County - VA	SN	SN	SN	SN
Chesterfield County - VA	76	60	78.6%	64.2%-88.2%
Clarke County - VA	SN	SN	SN	SN
Culpeper County - VA	14	11	85.2%	53.8%-96.6%
Cumberland County - VA	SN	SN	SN	SN
Dinwiddie County - VA	17	13	69.0%	41.6%-87.4%
Essex County - VA	SN	SN	SN	SN
Fauquier County - VA	19	15	86.8%	61.9%-96.4%
Fluvanna County - VA	SN	SN	SN	SN
Frederick County - VA	25	17	69.6%	47.0%-85.5%
Goochland County - VA	SN	SN	SN	SN
Greene County - VA	SN	SN	SN	SN
Greensville County - VA	SN	SN	SN	SN
Halifax County - VA	25	20	80.6%	57.2%-92.8%
Hanover County - VA	32	31	96.3%	78.7%-99.4%
Henrico County - VA	86	73	85.8%	73.6%-93.0%
Highland County - VA	SN	SN	SN	SN
King George County - VA	SN	SN	SN	SN
King William County - VA	SN	SN	SN	SN
King and Queen County - VA	SN	SN	SN	SN
Louisa County - VA	SN	SN	SN	SN
Lunenburg County - VA	SN	SN	SN	SN
Madison County - VA	SN	SN	SN	SN

<b>Population Group</b>	<b># of Women Interviewed (Sample Size)</b>	<b># w/ Self-Reported Mammogram</b>	<b>Proportion Screened (Weighted Average)</b>	<b>Confidence Interval of Proportion Screened</b>
Mecklenburg County - VA	36	30	87.3%	70.4%-95.2%
Nelson County - VA	11	8	77.9%	40.2%-94.9%
New Kent County - VA	SN	SN	SN	SN
Nottoway County - VA	SN	SN	SN	SN
Orange County - VA	13	8	60.5%	31.0%-83.9%
Page County - VA	SN	SN	SN	SN
Powhatan County - VA	13	10	82.8%	52.4%-95.4%
Prince Edward County - VA	SN	SN	SN	SN
Prince George County - VA	16	13	90.2%	56.6%-98.5%
Rappahannock County - VA	SN	SN	SN	SN
Richmond County - VA	SN	SN	SN	SN
Rockingham County - VA	39	28	66.7%	48.0%-81.3%
Shenandoah County - VA	14	10	82.9%	48.3%-96.2%
Spotsylvania County - VA	20	16	84.1%	53.9%-96.0%
Stafford County - VA	28	24	83.5%	62.4%-94.0%
Surry County - VA*	SN	SN	SN	SN
Sussex County - VA	SN	SN	SN	SN
Warren County - VA	SN	SN	SN	SN
Westmoreland County - VA	13	9	64.8%	30.3%-88.6%
Charlottesville City - VA	SN	SN	SN	SN
Colonial Heights City - VA	SN	SN	SN	SN
Emporia City - VA	SN	SN	SN	SN
Fredericksburg City - VA	SN	SN	SN	SN
Harrisonburg City - VA	SN	SN	SN	SN
Hopewell City - VA	10	8	89.0%	54.9%-98.2%
Petersburg City - VA	13	9	79.1%	46.5%-94.3%
Richmond City - VA	58	50	90.2%	75.8%-96.4%
Staunton City - VA	SN	SN	SN	SN
Waynesboro City - VA	SN	SN	SN	SN
Winchester City - VA	SN	SN	SN	SN

\*As of July 2014, Surry County became part of the Susan G. Komen Tidewater Affiliate service area.

SN – data suppressed due to small numbers (fewer than 10 samples).

Data are for 2012.

Source: CDC – Behavioral Risk Factor Surveillance System (BRFSS).

### ***Breast cancer screening proportions summary***

The breast cancer screening proportion in the Komen Central Virginia service area was not significantly different than that observed in the US as a whole. The screening proportion of the Affiliate service area was not significantly different than the State of Virginia.

For the United States, breast cancer screening proportions among Black/African-Americans/African-Americans are similar to those among Whites overall. APIs have somewhat lower screening proportions than Whites and Black/African-Americans/African-Americans. Although data are limited, screening proportions among AIANs are similar to those among Whites. Screening proportions among Hispanics/Latinas are similar to those among Non-Hispanic Whites and Black/African-Americans/African-Americans. For the Affiliate service area as a whole, the screening proportion was significantly higher among Black/African-Americans/African-Americans than Whites. There were not enough data available within the Affiliate service area to report on APIs and AIANs so comparisons cannot be made for these racial groups. Also, there were not enough data available within the Affiliate service area to report on Hispanics/Latinas so comparisons cannot be made for this group.

None of the counties in the Affiliate service area had substantially different screening proportions than the Affiliate service area as a whole or did not have enough data available.

### **Population Characteristics**

The report includes basic information about the women in each area (demographic measures) and about factors like education, income, and unemployment (socioeconomic measures) in the areas where they live (Tables 2.4 and 2.5). Demographic and socioeconomic data can be used to identify which groups of women are most in need of help and to figure out the best ways to help them.

It is important to note that the report uses the race and ethnicity categories used by the US Census Bureau, and that race and ethnicity are separate and independent categories. This means that everyone is classified as both a member of one of the four race groups as well as either Hispanic/Latina or Non-Hispanic/Latina.

The demographic and socioeconomic data in this report are the most recent data available for US counties. All the data are shown as percentages. However, the percentages weren't all calculated in the same way.

- The race, ethnicity, and age data are based on the total female population in the area (e.g. the percent of females over the age of 40).
- The socioeconomic data are based on all the people in the area, not just women.
- Income, education and unemployment data don't include children. They're based on people age 15 and older for income and unemployment and age 25 and older for education.
- The data on the use of English, called "linguistic isolation", are based on the total number of households in the area. The Census Bureau defines a linguistically isolated household as one in which all the adults have difficulty with English.

**Table 2.4.** Population characteristics – demographics.

Population Group	White	Black/African-American	AIAN	API	Non-Hispanic /Latina	Hispanic /Latina	Female Age 40 Plus	Female Age 50 Plus	Female Age 65 Plus
US	78.8 %	14.1 %	1.4 %	5.8 %	83.8 %	16.2 %	48.3 %	34.5 %	14.8 %
Virginia	71.9 %	21.1 %	0.6 %	6.5 %	92.3 %	7.7 %	48.5 %	33.9 %	13.9 %
Komen Central Virginia Service Area	73.0 %	23.6 %	0.5 %	2.9 %	94.9 %	5.1 %	49.7 %	35.3 %	14.8 %
Albemarle County - VA	83.6 %	10.7 %	0.4 %	5.2 %	95.0 %	5.0 %	50.1 %	36.8 %	16.0 %
Amelia County - VA	73.8 %	25.2 %	0.5 %	0.5 %	98.0 %	2.0 %	56.1 %	41.7 %	17.7 %
Appomattox County - VA	78.0 %	21.3 %	0.2 %	0.4 %	98.9 %	1.1 %	55.2 %	41.4 %	19.1 %
Augusta County - VA	95.8 %	3.2 %	0.3 %	0.7 %	98.0 %	2.0 %	56.3 %	41.2 %	17.9 %
Brunswick County - VA	42.9 %	56.3 %	0.3 %	0.5 %	98.6 %	1.4 %	56.5 %	43.5 %	20.1 %
Buckingham County - VA	65.8 %	33.3 %	0.3 %	0.5 %	98.5 %	1.5 %	54.8 %	40.8 %	17.5 %
Caroline County - VA	66.9 %	31.0 %	0.9 %	1.2 %	96.6 %	3.4 %	50.0 %	36.4 %	15.0 %
Charles City County - VA	40.7 %	50.4 %	8.1 %	0.8 %	98.6 %	1.4 %	62.4 %	46.5 %	19.2 %
Charlotte County - VA	67.4 %	31.8 %	0.3 %	0.4 %	98.4 %	1.6 %	57.1 %	43.8 %	20.9 %
Chesterfield County - VA	71.1 %	24.5 %	0.6 %	3.8 %	93.3 %	6.7 %	48.8 %	33.2 %	11.8 %
Clarke County - VA	92.4 %	5.7 %	0.4 %	1.5 %	96.6 %	3.4 %	58.7 %	42.1 %	18.0 %
Culpeper County - VA	81.2 %	16.2 %	0.7 %	1.9 %	91.9 %	8.1 %	48.6 %	33.8 %	13.7 %
Cumberland County - VA	64.5 %	34.5 %	0.4 %	0.6 %	98.2 %	1.8 %	54.1 %	39.8 %	17.8 %
Dinwiddie County - VA	63.9 %	34.8 %	0.4 %	0.8 %	97.4 %	2.6 %	53.4 %	37.6 %	15.2 %
Essex County - VA	58.0 %	39.9 %	0.8 %	1.3 %	97.7 %	2.3 %	54.5 %	41.0 %	17.9 %
Fauquier County - VA	88.2 %	9.3 %	0.5 %	2.0 %	93.8 %	6.2 %	53.2 %	36.5 %	14.0 %
Fluvanna County - VA	81.1 %	17.7 %	0.2 %	0.9 %	97.1 %	2.9 %	52.5 %	36.6 %	15.8 %
Frederick County - VA	93.1 %	4.8 %	0.5 %	1.7 %	93.4 %	6.6 %	50.1 %	34.3 %	14.0 %
Goochland County - VA	79.7 %	18.7 %	0.3 %	1.3 %	97.7 %	2.3 %	60.8 %	43.3 %	16.6 %
Greene County - VA	90.4 %	7.5 %	0.3 %	1.9 %	95.6 %	4.4 %	51.4 %	35.8 %	14.4 %
Greensville County - VA	40.1 %	59.0 %	0.4 %	0.5 %	98.8 %	1.2 %	55.7 %	42.4 %	19.5 %
Halifax County - VA	61.2 %	38.1 %	0.3 %	0.5 %	98.5 %	1.5 %	58.3 %	45.6 %	22.5 %
Hanover County - VA	87.6 %	10.2 %	0.4 %	1.8 %	97.9 %	2.1 %	54.4 %	37.5 %	15.2 %
Henrico County - VA	60.8 %	32.1 %	0.4 %	6.7 %	95.4 %	4.6 %	49.2 %	34.5 %	14.5 %
Highland County - VA	99.3 %	0.3 %	0.2 %	0.2 %	99.3 %	0.7 %	68.2 %	57.3 %	28.8 %
King and Queen County - VA	68.1 %	30.0 %	1.5 %	0.4 %	97.9 %	2.1 %	59.7 %	45.4 %	20.4 %
King George County - VA	77.8 %	19.8 %	0.5 %	1.9 %	96.6 %	3.4 %	46.4 %	29.9 %	11.3 %
King William County - VA	78.0 %	19.5 %	1.5 %	1.0 %	98.0 %	2.0 %	50.3 %	35.1 %	13.4 %
Louisa County - VA	79.8 %	19.0 %	0.4 %	0.8 %	97.8 %	2.2 %	55.0 %	39.8 %	15.5 %
Lunenburg County - VA	65.1 %	33.8 %	0.5 %	0.6 %	96.5 %	3.5 %	57.6 %	45.2 %	21.1 %

Population Group	White	Black/African-American	AIAN	API	Non-Hispanic /Latina	Hispanic /Latina	Female Age 40 Plus	Female Age 50 Plus	Female Age 65 Plus
Madison County - VA	88.9 %	10.1 %	0.1 %	0.9 %	98.3 %	1.7 %	57.1 %	43.6 %	19.2 %
Mecklenburg County - VA	61.9 %	36.9 %	0.3 %	0.9 %	97.9 %	2.1 %	60.4 %	47.9 %	24.1 %
Nelson County - VA	84.3 %	14.7 %	0.3 %	0.7 %	97.3 %	2.7 %	62.0 %	48.8 %	21.6 %
New Kent County - VA	83.7 %	13.9 %	1.0 %	1.3 %	98.1 %	1.9 %	56.0 %	39.3 %	13.5 %
Nottoway County - VA	60.2 %	38.6 %	0.8 %	0.5 %	96.5 %	3.5 %	55.0 %	42.3 %	21.0 %
Orange County - VA	84.6 %	13.9 %	0.4 %	1.1 %	96.8 %	3.2 %	55.5 %	41.4 %	19.6 %
Page County - VA	96.9 %	2.3 %	0.2 %	0.6 %	98.5 %	1.5 %	55.7 %	41.4 %	19.6 %
Powhatan County - VA	89.1 %	9.8 %	0.3 %	0.8 %	98.2 %	1.8 %	56.3 %	38.7 %	14.6 %
Prince Edward County - VA	64.0 %	34.4 %	0.3 %	1.4 %	98.1 %	1.9 %	44.8 %	33.7 %	16.3 %
Prince George County - VA	66.8 %	29.6 %	0.6 %	3.0 %	93.9 %	6.1 %	48.2 %	33.0 %	12.3 %
Rappahannock County - VA	93.6 %	5.3 %	0.3 %	0.8 %	96.7 %	3.3 %	61.4 %	47.2 %	19.4 %
Richmond County - VA	73.9 %	25.3 %	0.3 %	0.5 %	95.2 %	4.8 %	60.8 %	47.7 %	25.5 %
Rockingham County - VA	96.5 %	2.0 %	0.5 %	0.9 %	94.8 %	5.2 %	52.1 %	38.2 %	17.2 %
Shenandoah County - VA	96.4 %	2.4 %	0.4 %	0.8 %	94.4 %	5.6 %	56.2 %	42.2 %	20.9 %
Spotsylvania County - VA	79.6 %	16.7 %	0.5 %	3.2 %	92.4 %	7.6 %	46.9 %	30.6 %	11.2 %
Stafford County - VA	76.1 %	18.8 %	0.7 %	4.3 %	90.4 %	9.6 %	44.4 %	26.4 %	8.4 %
Surry County - VA*	50.5 %	48.8 %	0.2 %	0.5 %	98.8 %	1.2 %	59.0 %	43.0 %	17.5 %
Sussex County - VA	43.8 %	55.3 %	0.4 %	0.6 %	98.0 %	2.0 %	57.8 %	43.7 %	20.4 %
Warren County - VA	92.8 %	5.3 %	0.4 %	1.5 %	96.2 %	3.8 %	51.0 %	35.6 %	14.4 %
Westmoreland County - VA	68.8 %	29.5 %	0.7 %	1.0 %	95.2 %	4.8 %	59.3 %	47.2 %	22.2 %
Charlottesville City - VA	71.6 %	20.6 %	0.3 %	7.5 %	95.5 %	4.5 %	34.4 %	24.8 %	10.8 %
Colonial Heights City - VA	83.4 %	12.2 %	0.4 %	4.0 %	96.0 %	4.0 %	55.1 %	42.3 %	22.9 %
Emporia City - VA	35.4 %	63.2 %	0.5 %	0.8 %	96.2 %	3.8 %	52.0 %	39.3 %	20.4 %
Fredericksburg City - VA	70.5 %	24.9 %	0.7 %	3.8 %	90.0 %	10.0 %	36.1 %	25.2 %	10.9 %
Harrisonburg City - VA	87.4 %	7.6 %	0.6 %	4.4 %	85.6 %	14.4 %	26.9 %	19.4 %	9.6 %
Hopewell City - VA	58.2 %	39.7 %	0.5 %	1.6 %	94.3 %	5.7 %	48.3 %	35.5 %	17.0 %
Petersburg City - VA	18.3 %	80.1 %	0.4 %	1.2 %	96.5 %	3.5 %	52.2 %	39.0 %	17.9 %
Richmond City - VA	42.7 %	53.8 %	0.7 %	2.8 %	94.6 %	5.4 %	42.0 %	30.6 %	12.7 %
Staunton City - VA	85.3 %	13.3 %	0.2 %	1.2 %	97.6 %	2.4 %	53.9 %	42.6 %	22.1 %
Waynesboro City - VA	86.0 %	12.5 %	0.4 %	1.1 %	94.7 %	5.3 %	51.2 %	38.5 %	19.3 %
Winchester City - VA	84.2 %	12.2 %	0.8 %	2.8 %	86.6 %	13.4 %	46.5 %	33.9 %	16.3 %

\*As of July 2014, Surry County became part of the Susan G. Komen Tidewater Affiliate service area.

Data are for 2011.

Data are in the percentage of women in the population.

Source: US Census Bureau – Population Estimates

**Table 2.5.** Population characteristics – socioeconomic.

Population Group	Less than HS Education	Income Below 100% Poverty	Income Below 250% Poverty (Age: 40-64)	Un-employed	Foreign Born	Linguistic-ally Isolated	In Rural Areas	In Medically Under-served Areas	No Health Insurance (Age: 40-64)
US	14.6 %	14.3 %	33.3 %	8.7 %	12.8 %	4.7 %	19.3 %	23.3 %	16.6 %
Virginia	13.4 %	10.7 %	26.9 %	6.5 %	11.0 %	2.7 %	24.5 %	27.2 %	13.3 %
Komen Central Virginia Service Area	15.4 %	11.5 %	28.9 %	7.1 %	6.1 %	1.7 %	37.0 %	33.7 %	14.1 %
Albemarle County - VA	9.6 %	8.8 %	19.8 %	4.3 %	9.1 %	2.4 %	45.0 %	17.4 %	11.8 %
Amelia County - VA	21.2 %	10.5 %	35.7 %	7.6 %	3.4 %	1.0 %	100.0 %	100.0 %	18.4 %
Appomattox County - VA	19.9 %	16.6 %	37.7 %	9.4 %	1.0 %	0.0 %	100.0 %	0.0 %	16.1 %
Augusta County - VA	15.7 %	8.6 %	31.2 %	4.8 %	2.1 %	0.6 %	66.4 %	0.0 %	14.4 %
Brunswick County - VA	30.9 %	24.5 %	48.9 %	11.8 %	1.1 %	0.3 %	75.5 %	100.0 %	17.4 %
Buckingham County - VA	30.6 %	21.1 %	46.1 %	8.1 %	1.1 %	0.0 %	100.0 %	100.0 %	18.0 %
Caroline County - VA	18.1 %	8.9 %	31.4 %	10.6 %	2.0 %	0.6 %	78.4 %	100.0 %	14.8 %
Charles City County - VA	25.4 %	8.9 %	34.3 %	8.3 %	0.6 %	0.0 %	100.0 %	100.0 %	18.7 %
Charlotte County - VA	27.0 %	18.6 %	49.2 %	8.8 %	2.1 %	0.0 %	100.0 %	100.0 %	20.4 %
Chesterfield County - VA	10.1 %	6.1 %	20.2 %	6.0 %	8.0 %	2.1 %	5.9 %	3.5 %	12.4 %
Clarke County - VA	12.5 %	6.7 %	20.1 %	4.8 %	3.9 %	0.2 %	69.5 %	100.0 %	11.7 %
Culpeper County - VA	16.8 %	7.3 %	27.6 %	6.2 %	7.8 %	2.2 %	61.9 %	29.1 %	15.5 %
Cumberland County - VA	23.4 %	15.2 %	44.7 %	9.3 %	1.3 %	0.0 %	96.0 %	100.0 %	20.1 %
Dinwiddie County - VA	22.3 %	12.3 %	34.0 %	9.5 %	1.7 %	0.4 %	71.2 %	100.0 %	14.9 %
Essex County - VA	20.7 %	10.8 %	37.7 %	6.4 %	2.2 %	0.6 %	77.3 %	100.0 %	16.0 %
Fauquier County - VA	9.6 %	5.3 %	16.9 %	5.5 %	5.8 %	1.0 %	57.5 %	42.9 %	12.0 %
Fluvanna County - VA	14.8 %	6.9 %	24.0 %	5.5 %	2.9 %	1.1 %	62.9 %	100.0 %	13.6 %
Frederick County - VA	15.7 %	7.9 %	26.1 %	5.5 %	5.0 %	2.0 %	44.8 %	0.0 %	14.2 %
Goochland County - VA	15.5 %	5.2 %	14.6 %	4.2 %	2.5 %	0.1 %	97.0 %	100.0 %	8.4 %
Greene County - VA	19.1 %	7.3 %	29.1 %	4.7 %	4.0 %	2.2 %	51.2 %	100.0 %	16.0 %
Greensville County - VA	28.4 %	18.4 %	45.7 %	8.5 %	2.1 %	0.2 %	87.0 %	100.0 %	14.0 %
Halifax County - VA	25.4 %	19.3 %	46.6 %	10.6 %	1.2 %	0.4 %	77.1 %	100.0 %	17.2 %
Hanover County - VA	8.7 %	5.0 %	17.7 %	4.3 %	3.4 %	0.4 %	39.1 %	0.0 %	9.7 %
Henrico County - VA	10.7 %	10.2 %	24.9 %	7.0 %	10.8 %	2.9 %	4.3 %	3.2 %	13.4 %
Highland County - VA	24.1 %	9.0 %	42.2 %	0.9 %	0.6 %	0.0 %	100.0 %	0.0 %	24.0 %

Population Group	Less than HS Education	Income Below 100% Poverty	Income Below 250% Poverty (Age: 40-64)	Un-employed	Foreign Born	Linguistic-ally Isolated	In Rural Areas	In Medically Under-served Areas	No Health Insurance (Age: 40-64)
King and Queen County - VA	20.0 %	9.7 %	36.4 %	5.5 %	1.8 %	1.4 %	100.0 %	100.0 %	17.5 %
King George County - VA	9.1 %	6.9 %	18.7 %	5.7 %	2.2 %	1.0 %	73.2 %	100.0 %	8.9 %
King William County - VA	11.2 %	7.1 %	27.2 %	6.7 %	1.6 %	0.0 %	83.2 %	100.0 %	13.5 %
Louisa County - VA	18.0 %	9.5 %	33.1 %	5.5 %	2.3 %	1.1 %	100.0 %	100.0 %	16.0 %
Lunenburg County - VA	30.6 %	18.4 %	47.4 %	8.3 %	2.8 %	2.2 %	100.0 %	100.0 %	18.6 %
Madison County - VA	18.2 %	10.9 %	31.6 %	5.9 %	4.0 %	0.8 %	100.0 %	100.0 %	17.4 %
Mecklenburg County - VA	24.2 %	20.9 %	46.9 %	8.8 %	2.9 %	0.4 %	77.8 %	100.0 %	18.5 %
Nelson County - VA	21.3 %	11.4 %	36.5 %	5.7 %	2.3 %	0.8 %	100.0 %	0.0 %	17.5 %
New Kent County - VA	14.0 %	5.6 %	20.4 %	7.7 %	1.5 %	0.6 %	100.0 %	100.0 %	12.0 %
Nottoway County - VA	25.0 %	16.1 %	45.9 %	8.6 %	2.7 %	0.3 %	52.3 %	100.0 %	18.1 %
Orange County - VA	16.2 %	11.5 %	30.2 %	9.2 %	4.4 %	0.2 %	57.8 %	100.0 %	14.7 %
Page County - VA	26.9 %	14.1 %	41.3 %	9.8 %	1.6 %	0.3 %	80.2 %	0.0 %	16.3 %
Powhatan County - VA	18.4 %	4.4 %	19.7 %	4.2 %	2.6 %	0.8 %	99.7 %	100.0 %	13.3 %
Prince Edward County - VA	21.1 %	19.1 %	45.0 %	7.6 %	1.6 %	0.3 %	63.2 %	100.0 %	16.3 %
Prince George County - VA	15.4 %	6.5 %	26.4 %	8.0 %	3.5 %	0.5 %	53.4 %	0.0 %	11.3 %
Rappahannock County - VA	17.0 %	10.0 %	25.5 %	3.5 %	2.9 %	0.4 %	100.0 %	100.0 %	14.2 %
Richmond County - VA	26.2 %	10.6 %	39.0 %	4.6 %	4.5 %	1.3 %	100.0 %	100.0 %	18.1 %
Rockingham County - VA	21.1 %	9.9 %	33.7 %	4.7 %	4.6 %	1.4 %	59.3 %	0.0 %	17.4 %
Shenandoah County - VA	17.4 %	11.5 %	34.9 %	5.7 %	4.3 %	1.1 %	66.6 %	0.0 %	16.7 %
Spotsylvania County - VA	11.8 %	7.7 %	20.6 %	6.9 %	6.1 %	1.7 %	32.3 %	15.2 %	12.4 %
Stafford County - VA	8.2 %	4.4 %	14.3 %	6.2 %	8.1 %	1.7 %	19.8 %	100.0 %	9.5 %
Surry County - VA*	22.2 %	8.5 %	34.7 %	10.0 %	3.0 %	0.3 %	100.0 %	100.0 %	14.8 %
Sussex County - VA	33.5 %	15.6 %	45.8 %	9.5 %	1.3 %	0.0 %	100.0 %	100.0 %	16.9 %
Warren County - VA	15.6 %	8.8 %	29.1 %	5.9 %	3.7 %	1.7 %	50.4 %	0.0 %	15.7 %
Westmoreland County - VA	23.4 %	10.1 %	37.4 %	9.9 %	4.0 %	1.0 %	78.8 %	100.0 %	19.0 %
Charlottesville City - VA	14.1 %	26.4 %	37.4 %	5.7 %	12.2 %	3.1 %	0.0 %	15.2 %	15.6 %

Population Group	Less than HS Education	Income Below 100% Poverty	Income Below 250% Poverty (Age: 40-64)	Un-employed	Foreign Born	Linguistically Isolated	In Rural Areas	In Medically Underserved Areas	No Health Insurance (Age: 40-64)
Colonial Heights City – VA	12.5 %	7.1 %	30.3 %	7.6 %	4.7 %	0.9 %	0.0 %	0.0 %	14.4 %
Emporia City - VA	27.7 %	28.9 %	53.6 %	14.1 %	2.9 %	0.9 %	6.3 %	100.0 %	16.1 %
Fredericksburg City – VA	11.2 %	16.1 %	32.8 %	9.7 %	8.4 %	4.5 %	1.2 %	12.9 %	14.4 %
Harrisonburg City - VA	20.8 %	31.8 %	41.8 %	6.5 %	14.1 %	6.6 %	0.0 %	0.0 %	19.2 %
Hopewell City - VA	23.7 %	20.1 %	46.4 %	17.5 %	4.5 %	0.6 %	0.0 %	0.0 %	17.5 %
Petersburg City - VA	29.2 %	21.8 %	51.7 %	14.0 %	3.4 %	0.7 %	2.1 %	0.0 %	16.6 %
Richmond City - VA	19.5 %	26.3 %	46.4 %	11.0 %	7.1 %	2.6 %	0.0 %	20.5 %	17.4 %
Staunton City - VA	17.0 %	15.8 %	38.1 %	5.8 %	3.0 %	0.3 %	3.7 %	0.0 %	15.8 %
Waynesboro City - VA	17.6 %	19.9 %	41.3 %	9.9 %	3.7 %	0.8 %	2.5 %	100.0 %	16.0 %
Winchester City - VA	17.8 %	18.7 %	36.4 %	8.8 %	11.2 %	4.2 %	0.0 %	0.0 %	17.8 %

\*As of July 2014, Surry County became part of the Susan G. Komen Tidewater Affiliate service area.

Data are in the percentage of people (men and women) in the population.

Source of health insurance data: US Census Bureau – Small Area Health Insurance Estimates (SAHIE) for 2011.

Source of rural population data: US Census Bureau – Census 2010.

Source of medically underserved data: Health Resources and Services Administration (HRSA) for 2013.

Source of other data: US Census Bureau – American Community Survey (ACS) for 2007-2011.

### ***Population characteristics summary***

Proportionately, the Komen Central Virginia service area has a substantially smaller White female population than the US as a whole, a substantially larger Black/African-American female population, a slightly smaller Asian and Pacific Islander (API) female population, a slightly smaller American Indian and Alaska Native (AIAN) female population, and a substantially smaller Hispanic/Latina female population. The Affiliate’s female population is about the same age as that of the US as a whole. The Affiliate’s education level is slightly lower than and income level is slightly higher than those of the US as a whole. There are a slightly smaller percentage of people who are unemployed in the Affiliate service area. The Affiliate service area has a substantially smaller percentage of people who are foreign born and a slightly smaller percentage of people who are linguistically isolated. There are a substantially larger percentage of people living in rural areas, a slightly smaller percentage of people without health insurance, and a substantially larger percentage of people living in medically underserved areas.

The following counties have substantially larger Black/African-American female population percentages than that of the Affiliate service area as a whole:

- Brunswick County
- Buckingham County
- Caroline County
- Charles City County
- Charlotte County
- Cumberland County
- Dinwiddie County

- Essex County
- Greensville County
- Halifax County
- Henrico County
- King and Queen County
- Lunenburg County
- Mecklenburg County
- Nottoway County
- Prince Edward County
- Prince George County
- Surry County
- Sussex County
- Westmoreland County
- Emporia City
- Hopewell City
- Petersburg City
- Richmond City

The following counties have substantially larger API female population percentages than that of the Affiliate service area as a whole:

- Henrico County
- Charlottesville City

The following county has a substantially larger AIAN female population percentage than that of the Affiliate service area as a whole:

- Charles City County

The following counties have substantially larger Hispanic/Latina female population percentages than that of the Affiliate service area as a whole:

- Harrisonburg City
- Winchester City

The following counties have substantially older female population percentages than that of the Affiliate service area as a whole:

- Brunswick County
- Charlotte County
- Halifax County
- Highland County
- King and Queen County
- Lunenburg County
- Mecklenburg County
- Nelson County
- Nottoway County
- Richmond County
- Shenandoah County
- Sussex County
- Westmoreland County
- Colonial Heights City

The following counties have substantially lower education levels than that of the Affiliate service area as a whole:

- Amelia County
- Brunswick County
- Buckingham County
- Charles City County
- Charlotte County
- Cumberland County
- Dinwiddie County
- Essex County
- Greenville County
- Halifax County
- Highland County
- Lunenburg County
- Mecklenburg County
- Nelson County
- Nottoway County
- Page County
- Prince Edward County
- Richmond County
- Rockingham County
- Surry County
- Sussex County
- Westmoreland County
- Emporia City
- Harrisonburg City
- Hopewell City
- Petersburg City

The following counties have substantially lower income levels than that of the Affiliate service area as a whole:

- Appomattox County
- Brunswick County
- Buckingham County
- Charlotte County
- Greenville County
- Halifax County
- Lunenburg County
- Mecklenburg County
- Prince Edward County
- Charlottesville City
- Emporia City
- Harrisonburg City
- Hopewell City
- Petersburg City
- Richmond City
- Waynesboro City
- Winchester City

The following counties have substantially lower employment levels than that of the Affiliate service area as a whole:

- Brunswick County
- Caroline County
- Halifax County
- Emporia City
- Hopewell City
- Petersburg City
- Richmond City

The county with a substantial foreign born and linguistically isolated population is:

- Harrisonburg City

The following counties have substantially larger percentage of adults without health insurance than does the Affiliate service area as a whole:

- Charlotte County
- Cumberland County
- Highland County
- Harrisonburg City

## **Priority Areas**

### ***Healthy People 2020 forecasts***

Healthy People 2020 (HP2020) is a major federal government initiative that provides specific health objectives for communities and for the country as a whole. Many national health organizations use HP2020 targets to monitor progress in reducing the burden of disease and improve the health of the nation. Likewise, Komen believes it is important to refer to HP2020 to see how areas across the country are progressing towards reducing the burden of breast cancer.

HP2020 has several cancer-related objectives, including:

- Reducing women's death rate from breast cancer (Target as of the writing of this report: 41.0 cases per 100,000 women).
- Reducing the number of breast cancers that are found at a late-stage (Target as of the writing of this report: 41.0 cases per 100,000 women).

To see how well counties in the Komen Central Virginia service area are progressing toward these targets, the report uses the following information:

- County breast cancer death rate and late-stage diagnosis data for years 2006 to 2010.
- Estimates for the trend (annual percent change) in county breast cancer death rates and late-stage diagnoses for years 2006 to 2010.
- Both the data and the HP2020 target are age-adjusted.

These data are used to estimate how many years it will take for each county to meet the HP2020 objectives. Because the target date for meeting the objective is 2020, and 2008 (the middle of the 2006-2010 period) was used as a starting point, a county has 12 years to meet the target.

Death rate and late-stage diagnosis data and trends are used to calculate whether an area will meet the HP2020 target, assuming that the trend seen in years 2006 to 2010 continues for 2011 and beyond.

**Identification of priority areas**

The purpose of this report is to combine evidence from many credible sources and use the data to identify the highest priority areas for breast cancer programs (i.e. the areas of greatest need). Classification of priority areas are based on the time needed to achieve HP2020 targets in each area. These time projections depend on both the starting point and the trends in death rates and late-stage incidence.

Late-stage incidence reflects both the overall breast cancer incidence rate in the population and the mammography screening coverage. The breast cancer death rate reflects the access to care and the quality of care in the health care delivery area, as well as cancer stage at diagnosis.

There has not been any indication that either one of the two HP2020 targets is more important than the other. Therefore, the report considers them equally important.

Counties are classified as follows (Table 2.6):

- Counties that are not likely to achieve either of the HP2020 targets are considered to have the highest needs.
- Counties that have already achieved both targets are considered to have the lowest needs.
- Other counties are classified based on the number of years needed to achieve the two targets.

**Table 2.6.** Needs/priority classification based on the projected time to achieve HP2020 breast cancer targets.

		Time to Achieve Late-stage Incidence Reduction Target				
		13 years or longer	7-12 yrs.	0 – 6 yrs.	Currently meets target	Unknown
Time to Achieve Death Rate Reduction Target	13 years or longer	Highest	High	Medium High	Medium	Highest
	7-12 yrs.	High	Medium High	Medium	Medium Low	Medium High
	0 – 6 yrs.	Medium High	Medium	Medium Low	Low	Medium Low
	Currently meets target	Medium	Medium Low	Low	Lowest	Lowest
	Unknown	Highest	Medium High	Medium Low	Lowest	Unknown

If the time to achieve a target cannot be calculated for one of the HP2020 indicators, then the county is classified based on the other indicator. If both indicators are missing, then the county is not classified. This doesn't mean that the county may not have high needs; it only means that sufficient data are not available to classify the county.

### **Affiliate Service Area Healthy People 2020 Forecasts and Priority Areas**

The results presented in Table 2.7 help identify which counties have the greatest needs when it comes to meeting the HP2020 breast cancer targets.

- For counties in the “13 years or longer” category, current trends would need to change to achieve the target.
- Some counties may currently meet the target but their rates are increasing and they could fail to meet the target if the trend is not reversed.

Trends can change for a number of reasons, including:

- Improved screening programs could lead to breast cancers being diagnosed earlier, resulting in a decrease in both late-stage incidence rates and death rates.
- Improved socioeconomic conditions, such as reductions in poverty and linguistic isolation could lead to more timely treatment of breast cancer, causing a decrease in death rates.

The data in this table should be considered together with other information on factors that affect breast cancer death rates such as screening rates and key breast cancer death determinants such as poverty and linguistic isolation.

**Table 2.7.** Intervention priorities for Komen Central Virginia service area with predicted time to achieve the HP2020 breast cancer targets and key population characteristics.

<b>County</b>	<b>Priority</b>	<b>Predicted Time to Achieve Death Rate Target</b>	<b>Predicted Time to Achieve Late-stage Incidence Target</b>	<b>Key Population Characteristics</b>
Amelia County - VA	Highest	SN	13 years or longer	Education, rural, medically underserved
Appomattox County - VA	Highest	SN	13 years or longer	Poverty, rural
Brunswick County - VA	Highest	13 years or longer	13 years or longer	%Black/African-American, older, education, poverty, employment, rural, medically underserved
Caroline County - VA	Highest	NA	13 years or longer	%Black/African-American, employment, rural, medically underserved
Goochland County - VA	Highest	SN	13 years or longer	Rural, medically underserved
Henrico County - VA	Highest	13 years or longer	13 years or longer	%Black/African-American, %API
Lunenburg County - VA	Highest	SN	13 years or longer	%Black/African-American, older, education, poverty, rural, medically underserved
Nelson County - VA	Highest	SN	13 years or longer	Older, education, rural
Nottoway County - VA	Highest	SN	13 years or longer	%Black/African-American, older, education, rural, medically underserved

County	Priority	Predicted Time to Achieve Death Rate Target	Predicted Time to Achieve Late-stage Incidence Target	Key Population Characteristics
Orange County - VA	Highest	13 years or longer	13 years or longer	Rural, medically underserved
Shenandoah County - VA	Highest	13 years or longer	13 years or longer	Older, rural
Spotsylvania County - VA	Highest	13 years or longer	13 years or longer	
Stafford County - VA	Highest	13 years or longer	13 years or longer	Medically underserved
Fredericksburg City - VA	Highest	SN	13 years or longer	
Hopewell City - VA	Highest	SN	13 years or longer	%Black/African-American, education, poverty, employment
Staunton City - VA	Highest	SN	13 years or longer	
Winchester City - VA	Highest	NA	13 years or longer	%Hispanic, poverty, foreign
Frederick County - VA	High	11 years	13 years or longer	Rural
Mecklenburg County - VA	High	8 years	13 years or longer	%Black/African-American, older, education, poverty, rural, medically underserved
Charlottesville City - VA	High	10 years	13 years or longer	%API, poverty, foreign
Richmond City - VA	High	13 years or longer	11 years	%Black/African-American, poverty, employment
Culpeper County - VA	Medium High	13 years or longer	4 years	Rural
Fluvanna County - VA	Medium High	1 year	13 years or longer	Rural, medically underserved
Halifax County - VA	Medium High	13 years or longer	1 year	%Black/African-American, older, education, poverty, employment, rural, medically underserved
Hanover County - VA	Medium High	5 years	13 years or longer	
Louisa County - VA	Medium High	2 years	13 years or longer	Rural, medically underserved
Page County - VA	Medium High	SN	12 years	Education, rural
Prince Edward County - VA	Medium High	13 years or longer	1 year	%Black/African-American, education, poverty, rural, medically underserved
Sussex County - VA	Medium High	SN	8 years	%Black/African-American, older, education, rural, medically underserved
Warren County - VA	Medium High	13 years or longer	2 years	Rural
Petersburg City - VA	Medium High	7 years	9 years	%Black/African-American, education, poverty, employment
Albemarle County - VA	Medium	Currently meets target	13 years or longer	Rural

<b>County</b>	<b>Priority</b>	<b>Predicted Time to Achieve Death Rate Target</b>	<b>Predicted Time to Achieve Late-stage Incidence Target</b>	<b>Key Population Characteristics</b>
Dinwiddie County - VA	Medium	13 years or longer	Currently meets target	%Black/African-American, education, rural, medically underserved
Westmoreland County - VA	Medium	13 years or longer	Currently meets target	%Black/African-American, older, education, rural, medically underserved
Harrisonburg City - VA	Medium	Currently meets target	13 years or longer	%Hispanic, education, poverty, foreign, language, insurance
Charles City County - VA	Medium Low	NA	3 years	%Black/African-American, %AIAN, education, rural, medically underserved
Fauquier County - VA	Medium Low	10 years	Currently meets target	Rural, medically underserved
Greene County - VA	Medium Low	SN	1 year	Rural, medically underserved
King George County - VA	Medium Low	SN	2 years	Rural, medically underserved
Powhatan County - VA	Medium Low	SN	2 years	Rural, medically underserved
Prince George County - VA	Medium Low	NA	5 years	%Black/African-American, rural
Colonial Heights City - VA	Medium Low	SN	1 year	Older
Waynesboro City - VA	Medium Low	NA	1 year	Poverty, medically underserved
Chesterfield County - VA	Low	Currently meets target	4 years	
Rockingham County - VA	Low	Currently meets target	2 years	Education, rural
Augusta County - VA	Lowest	Currently meets target	Currently meets target	Rural
New Kent County - VA	Lowest	SN	Currently meets target	Rural, medically underserved
Buckingham County - VA	Undetermined	SN	SN	%Black/African-American, education, poverty, rural, medically underserved
Charlotte County - VA	Undetermined	SN	SN	%Black/African-American, older, education, poverty, rural, insurance, medically underserved
Clarke County - VA	Undetermined	SN	NA	Rural, medically underserved
Cumberland County - VA	Undetermined	SN	SN	%Black/African-American, education, rural, insurance, medically underserved

<b>County</b>	<b>Priority</b>	<b>Predicted Time to Achieve Death Rate Target</b>	<b>Predicted Time to Achieve Late-stage Incidence Target</b>	<b>Key Population Characteristics</b>
Essex County - VA	Undetermined	SN	SN	%Black/African-American, education, rural, medically underserved
Greensville County - VA	Undetermined	SN	SN	%Black/African-American, education, poverty, rural, medically underserved
Highland County - VA	Undetermined	SN	SN	Older, education, rural, insurance
King William County - VA	Undetermined	SN	NA	Rural, medically underserved
King and Queen County - VA	Undetermined	SN	SN	%Black/African-American, older, rural, medically underserved
Madison County - VA	Undetermined	SN	NA	Rural, medically underserved
Rappahannock County - VA	Undetermined	SN	SN	Rural, medically underserved
Richmond County - VA	Undetermined	SN	SN	Older, education, rural, medically underserved
Surry County - VA*	Undetermined	SN	SN	%Black/African-American, education, rural, medically underserved
Emporia City - VA	Undetermined	SN	SN	%Black/African-American, education, poverty, employment, medically underserved

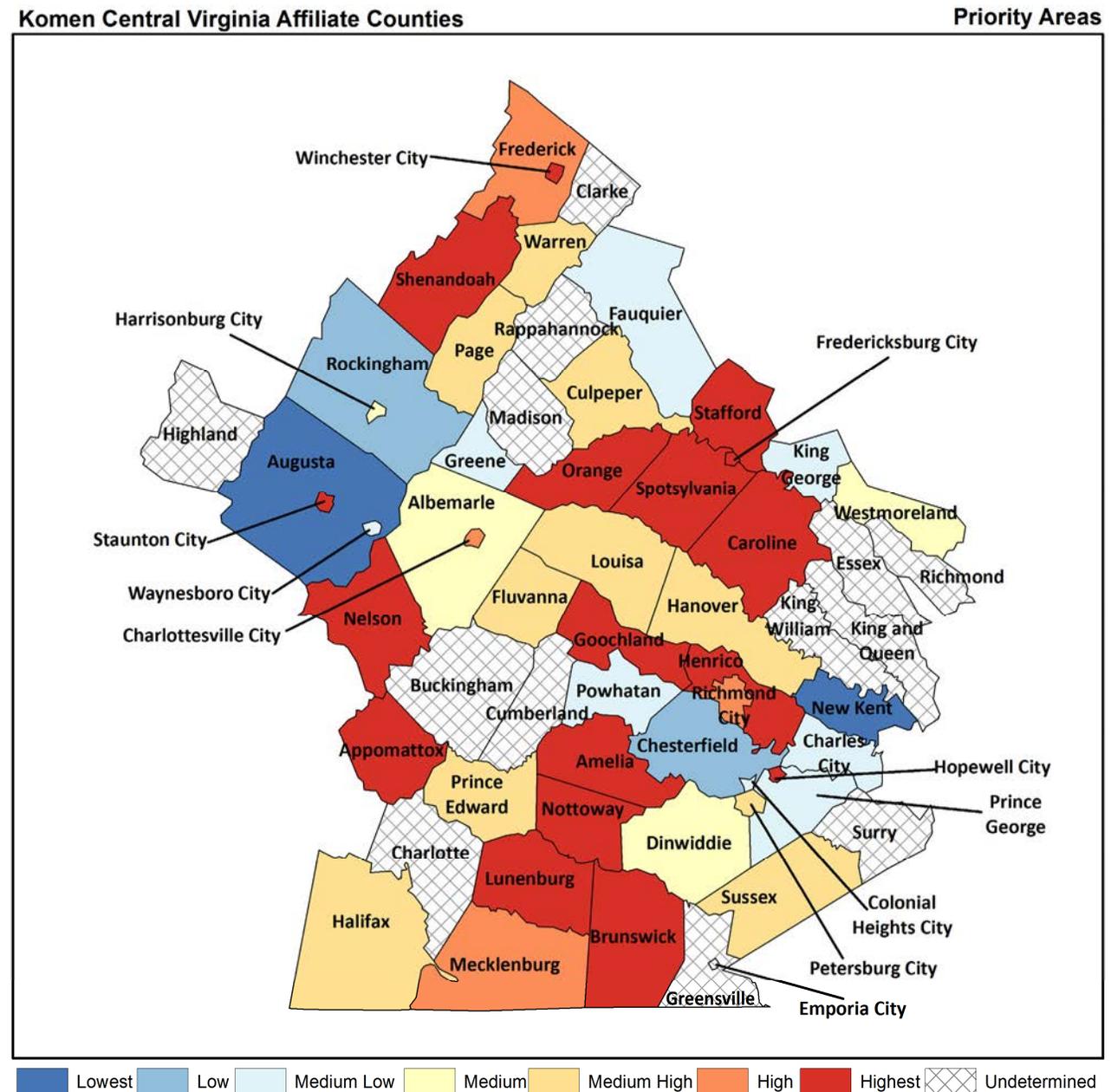
\*As of July 2014, Surry County became part of the Susan G. Komen Tidewater Affiliate service area.

NA – data not available.

SN – data suppressed due to small numbers (15 cases or fewer for the 5-year data period).

### Map of Intervention Priority Areas

Figure 2.1 shows a map of the intervention priorities for the counties in the Affiliate service area. When both of the indicators used to establish a priority for a county are not available, the priority is shown as “undetermined” on the map.



As of July 2014, Surry County became a part of the Susan G. Komen Tidewater Affiliate.

**Figure 2.1.** Intervention priorities.

### Data Limitations

The following data limitations need to be considered when utilizing the data of the Quantitative Data Report:

- The most recent data available were used but, for cancer incidence and deaths, these data are still several years behind.
- For some areas, data might not be available or might be of varying quality.

- Areas with small populations might not have enough breast cancer cases or breast cancer deaths each year to support the generation of reliable statistics.
- There are often several sources of cancer statistics for a given population and geographic area; therefore, other sources of cancer data may result in minor differences in the values even in the same time period.
- Data on cancer rates for specific racial and ethnic subgroups such as Somali, Hmong, or Ethiopian are not generally available.
- The various types of breast cancer data in this report are inter-dependent.
- There are many factors that impact breast cancer risk and survival for which quantitative data are not available. Some examples include family history, genetic markers like HER2 and BRCA, other medical conditions that can complicate treatment, and the level of family and community support available to the patient.
- The calculation of the years needed to meet the HP2020 objectives assume that the current trends will continue until 2020. However, the trends can change for a number of reasons.
- Not all breast cancer cases have a stage indication.

## **Quantitative Data Report Conclusions**

### ***Highest priority areas***

Seventeen counties in the Komen Central Virginia service area are in the highest priority category. Six of the seventeen, Brunswick County, Henrico County, Orange County, Shenandoah County, Spotsylvania County and Stafford County, are not likely to meet either the death rate or late-stage incidence rate HP2020 targets. Eleven of the seventeen, Amelia County, Appomattox County, Caroline County, Goochland County, Lunenburg County, Nelson County, Nottoway County, Fredericksburg City, Hopewell City, Staunton City and Winchester City, are not likely to meet the late-stage incidence rate HP2020 target.

The death rates in Winchester City (39.1 per 100,000) are significantly higher than the Affiliate service area as a whole (24.5 per 100,000). The late-stage incidence rates in Goochland County (65.9 per 100,000) are significantly higher than the Affiliate service area as a whole (45.4 per 100,000).

Amelia County has low education levels. Appomattox County has a high poverty percentage. Brunswick County has a relatively large Black/African-American population, an older population, low education levels, high poverty percentages and high unemployment. Caroline County has a relatively large Black/African-American population and high unemployment. Henrico County has a relatively large Black/African-American population and a relatively large API population. Lunenburg County has a relatively large Black/African-American population, an older population, low education levels and high poverty percentages. Nelson County has an older population and low education levels. Nottoway County has a relatively large Black/African-American population, an older population and low education levels. Shenandoah County has an older population. Hopewell City has a relatively large Black/African-American population, low education levels, high poverty percentages and high unemployment. Winchester City has a relatively large Hispanic/Latina population, high poverty percentages and a relatively large foreign-born population.

### ***High priority areas***

Four counties in the Komen Central Virginia service area are in the high priority category. One of the four, Richmond City is not likely to meet the death rate HP2020 target. Three of the four, Frederick County, Mecklenburg County and Charlottesville City, are not likely to meet the late-stage incidence rate HP2020 target.

The death rates in Richmond City (31.6 per 100,000) are significantly higher than the Affiliate service area as a whole (24.5 per 100,000). The late-stage incidence rates in Richmond City (54.4 per 100,000) are significantly higher than the Affiliate service area as a whole (45.4 per 100,000).

Mecklenburg County has a relatively large Black/African-American population, an older population, low education levels and high poverty percentages. Charlottesville City has a relatively large API population, high poverty percentages and a relatively large foreign-born population. Richmond City has a relatively large Black/African-American population, high poverty percentages and high unemployment.

### **Additional Quantitative Data Exploration**

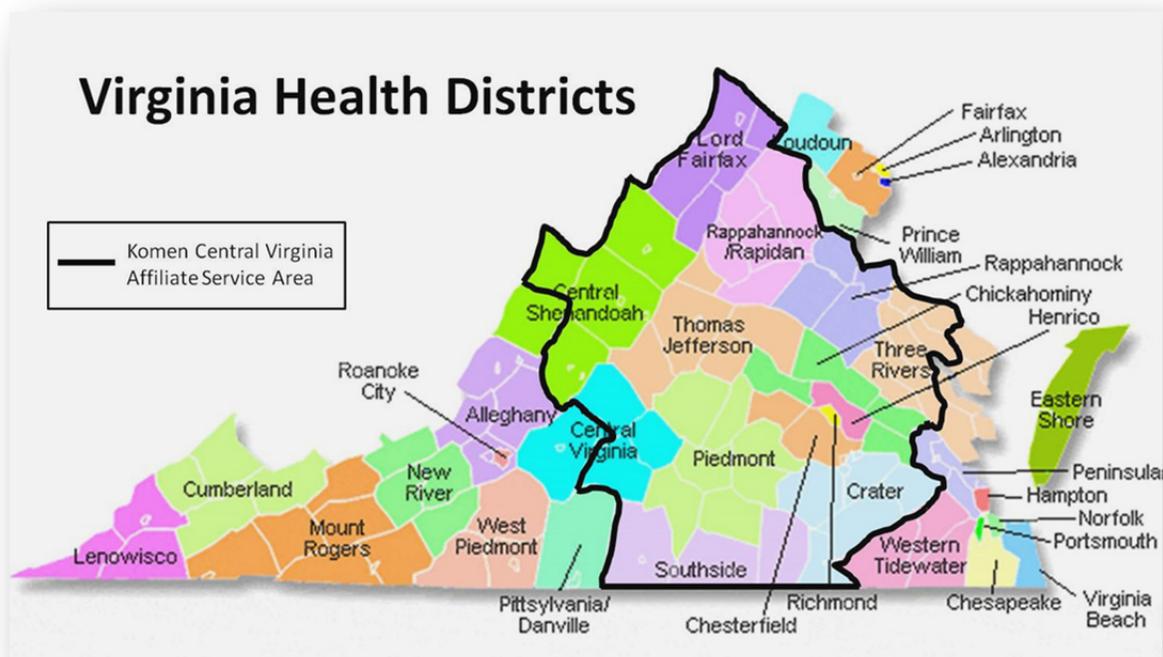
Additional statistics were collected to augment the Quantitative Data Report (QDR) provided by Komen Headquarters. The data were used to help understand the burden of breast cancer in counties with few cases and to determine the similarity of counties in proximity to priority areas. The Virginia Cancer Registry (VCR) provided five-year, age-adjusted breast cancer incidence and staging statistics for the counties that were not reported in the QDR. Highland County was the only county in the QDR that did not report incidence counts and rates; the VCR data revealed that five cases of breast cancer were reported in that county during the five-year period, for a rate of 49.23 per 100,000. Table 2.8 shows the five-year breast cancer staging data for all counties and cities that did not have statistics in the Komen Central Virginia QDR. According to the VCR, data may be a conservative account of breast cancer, as not all facilities are currently reporting to the VCR and some patients are being diagnosed outside of the state. Therefore, case reporting may be less complete for certain racial groups, cancer sites, or diagnosis stages.

**Table 2.8.** Age-Adjusted Female Breast Cancer Late-Stage Incidence Counts and Rates, 2007-2011, for Virginia Localities not available in Central Virginia Quantitative Data Report.

Selected County/City	Population	Number of New Late-Stage Cases 2007-2011	Age-Adjusted Rate/100,000
Buckingham	38,014	13	28.36
Charlotte	32,163	14	31.09
Cumberland	25,550	13	38.35
Essex	29,079	17	44.13
Greensville	22,703	19	67.55
Highland	5,906	2	22.46
King and Queen	17,374	10	38.05
Rappahannock	18,537	10	42.36
Richmond County	20,251	5	22.67
Surry County*	17,710	14	57.02
Emporia City	15,754	10	56.35

\*As of July 2014, Surry County became a part of the Susan G. Komen Tidewater Affiliate.  
 Source: Virginia Cancer Registry, 2014

Komen Central Virginia service area is organized into fourteen health districts, as shown in Figure 2.2. Some counties in the Central Shenandoah, Central Virginia, and Three Rivers Health Districts reside in a contiguous Komen Affiliate service area, therefore the data for those health districts may not be completely representative of the counties in the Komen Central Virginia service area.



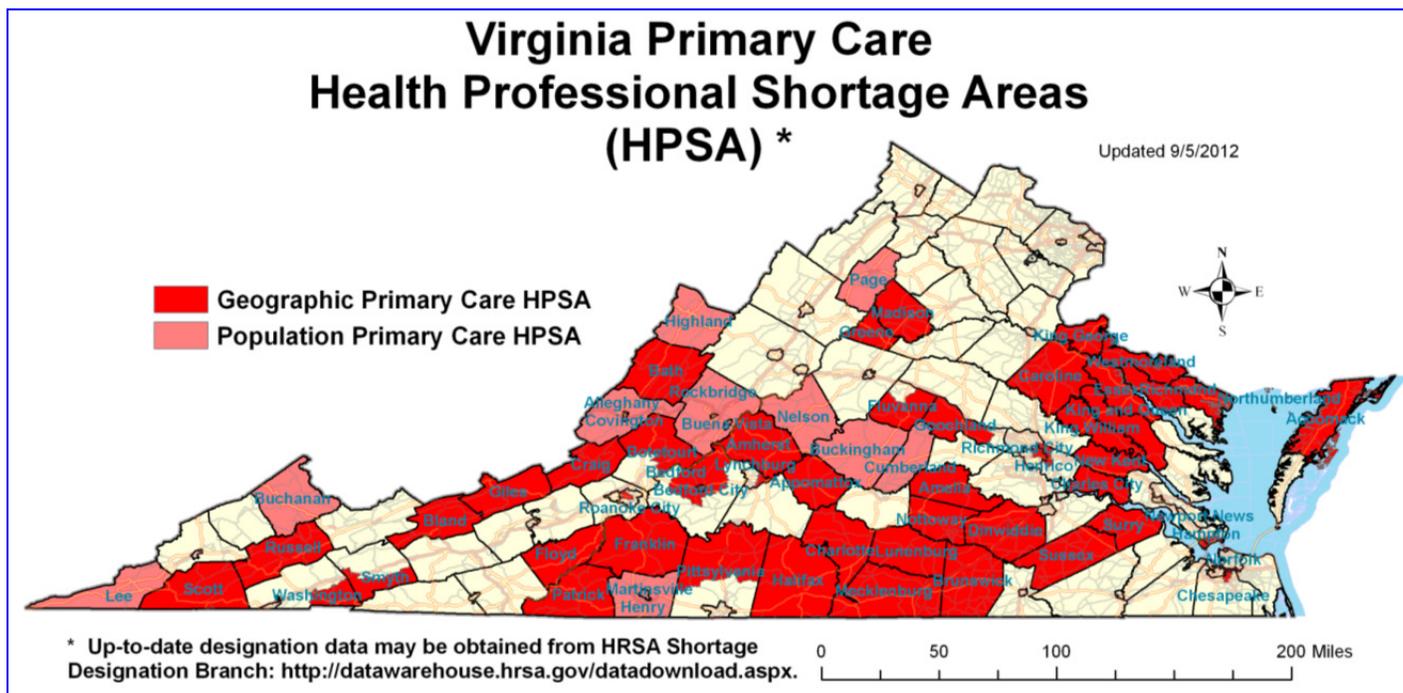
**Figure 2.2.** Virginia Department of Health Districts

Age-adjusted death rate data by health district for the period of 2008-2012 were collected from the Virginia Division of Health Statistics (VDHS) and reviewed to gain a better understanding of breast cancer in sparsely populated areas with fewer cases. Death counts and rates for Whites, Black/African-Americans, and all races were reported. Data on Hispanics/Latinos and Native Americans are not available, and some districts reported too few cases to calculate a reliable death rate (Table 2.9).

**Table 2.9.** Virginia breast cancer death rates, 2008-2012, female, by race and health district in Central Virginia service area.

District	All Races*			White		Black/African-American		
	Deaths	Rate		Deaths	Rate		Deaths	Rate
VIRGINIA	5,275	22.7		3,863	21.3		1,297	31.5
Central Shenandoah	175	18.4	<	171	18.9		^	~
Central Virginia	190	21.4		155	21.0		33	23.5
Chesterfield	212	22.0		149	18.9		62	42.4
Chickahominy	101	22.5		79	21.0		21	~
Crater	124	26.7		54	21.9		68	32.4
Henrico	254	26.7	>	172	24.1		77	34.9
Lord Fairfax	187	26.4		176	26.2	>	11	~
Piedmont	109	31.1	>	60	26.0		49	41.5
Rappahannock	176	22.6		134	21.8		40	27.6
Rappahannock/Rapidan	106	20.7		88	19.6		16	~
Richmond	163	26.4		65	22.5		97	29.8
Southside	91	28.6		45	22.4		46	39.8
Thomas Jefferson	133	18.4	<	113	18.1		18	~
Three Rivers	104	18.6		81	18.1		23	~

In order to determine the Primary Care Health Professional Shortage Areas (HPSA) in Virginia, a map (Figure 2.3) was downloaded from the Virginia Department of Health website (retrieved from <http://www.vdh.virginia.gov/OMHHE/Documents/virginiaprimary.pdf>).



Source: US Department of Health and Human Services, 2012

**Figure 2.3.** Primary care health professional shortage areas

**Selection of Target Communities**

In order to be the most efficient stewards of resources, Susan G. Komen Central Virginia has chosen three target communities within the service area. The Affiliate will focus strategic efforts on these target communities over the course of the next four years. Target communities are those communities which have cumulative key indicators showing an increased chance of vulnerable populations likely at risk for experiencing gaps in breast health services and/or barriers in access to care.

When selecting target communities, the Affiliate reviewed Healthy People 2020 (HP2020), a major federal government initiative that provides specific health objectives for communities and the country as a whole. Specific to Komen Central Virginia’s work, goals around reducing women’s death rate from breast cancer and reducing the number of breast cancers found at a late-stage were analyzed. Through this review, areas of priority were identified based on the time needed to meet HP 2020 targets for breast cancer.

Additional key indicators the Affiliate reviewed when selecting target counties included, but were not limited to:

- Incidence rates and trends
- Death rates and trends
- Late-stage rates and trends
- Below average screening percentages
- Residents living below poverty level
- Residents living without health insurance

- Medically underserved areas and access to primary care
- High school graduation percentages
- Female population race and age

The selected target communities are:

- Richmond, Virginia Metropolitan Area (Richmond City and Chesterfield, Goochland, Hanover, and Henrico Counties)
- Piedmont Virginia (Amelia, Appomattox, Buckingham, Charlotte, Cumberland, Lunenburg, Nottoway, and Prince Edward Counties)
- Southside Virginia (Emporia City and Brunswick, Greensville, Halifax, and Mecklenburg Counties)

### ***Richmond, Virginia Metropolitan Area***

The Richmond metropolitan area consists of the City of Richmond and the surrounding Counties of Chesterfield, Hanover, Henrico, and Goochland. The City of Richmond is the densely populated capital of Virginia and center of the metropolitan area, and its neighboring counties range in characteristic from suburban to rural. There are 486,000 females living within the 1,508 square mile Richmond metropolitan area (Table 2.1; US Census Bureau, 1990). Because residents of the metropolitan area cross city and county lines for health care and because all surrounding county governments work collaboratively with the City of Richmond, the entire area was selected for further study. Richmond and its surrounding counties also share similar breast cancer incidence rates (Table 2.1).

The City of Richmond is identified as a high priority area in the Central Virginia QDR due to the predicted length of intervention time needed to achieve the HP2020 targets for breast cancer death rates and late-stage incidence (Table 2.7). With a death rate of 31.6 and late-stage incidence of 54.4, the City of Richmond will miss the HP2020 targets of 20.6 and 41.0, respectively, unless the rates fall faster than currently estimated. According to the Center for Disease Control (CDC) Behavioral Risk Factor Surveillance System (BRFSS), over 90 percent of women in Richmond reported having had a screening mammography screening in the last two years (Table 2.3). The proportion of women screened in Richmond exceeds that of the US (77.5 percent).

The City of Richmond has a large population of impoverished, unemployed (11 percent), uninsured (17.4 percent), and Black/African-American (53.8 percent) residents (Table 2.4, Table 2.5). More than five percent of the population is Hispanic/Latina (Table 2.4). The percentages of Richmond residents who are uninsured (17.4) and living in poverty (46.4 below 250 percent) are well over those for the State of Virginia (Table 2.5). Almost 20 percent of the residents have less than a high school diploma, compared to 13.4 percent for the state, and 14.6 percent for the US (Table 2.5).

Goochland County is classified as highest priority for intervention with a late-stage diagnosis rate of 65.9 that is slightly increasing; there are not sufficient data to calculate the predicted time to achieve the HP2020 death rate target (Table 2.7). No mammography screening data are available for Goochland (Table 2.3). Goochland County is a primarily rural and medically underserved county, with slightly more than 15.5 percent of the population having less than a high school education (Table 2.5). The US Department of Health and Human Services classifies Goochland as a Primary Care Health Professional Shortage Area (Figure 2.3).

Henrico County is identified as highest priority for intervention because trends indicate that it may take 13 years or longer to achieve the HP2020 goals (Table 2.7). The Henrico County breast cancer death rate of 26.7 and the late-stage diagnosis rate of 47.7 exceed those for the state (Table 2.1). The proportion of women reporting a screening mammogram in the last two years is 85.5 percent, or higher than the state and US (Table 2.3). More than 10 percent of the population of Henrico County is foreign born; Hispanics/Latinas account for 4.6 percent of the population and Asian and Pacific Islanders, 6.7 percent (Table 2.4).

Hanover County is identified as medium high priority in terms of meeting HP2020 targets. If the upward trend in the age-adjusted late-stage diagnosis rate of 43.8 continues, Hanover is likely to miss the HP2020 target of 41.0 (Table 2.7). While Hanover County is considered somewhat rural (39.1 percent), its literacy, poverty, unemployment, and insurance coverage percentages are better than those for the state and the US (Table 2.5).

Chesterfield County is classified as a low priority for intervention because the current downward trend implies that the HP2020 death rate target of 20.6 will be met. It is expected that the current rate of late-stage breast cancer diagnosis (47.3) will reach the HP2020 target of 41.0 within four years (Table 2.7). More than 78 percent of women ages 50-74 in Chesterfield reported having a screening mammogram in the last two years, which is slightly lower than the percentage for Virginia (Table 2.3). More than 6 percent of the population residing in Chesterfield County is Hispanic/Latina (Table 2.4).

The statistical review of the Richmond Metropolitan Area steers a qualitative analysis to further investigate:

- The burden of breast cancer within the Hispanic/Latina communities of Chesterfield, Richmond, and Henrico
- The burden of breast cancer within the Asian and Pacific Islander population of Henrico
- Where women in each county are accessing care to determine what barriers exist
- Why women are not accessing breast cancer screening earlier
- Whether women who are diagnosed with breast cancer are progressing satisfactorily through treatment

### ***Piedmont Virginia***

Over 57,000 women live in the medically underserved Piedmont counties of Amelia, Appomattox, Buckingham, Charlotte, Cumberland, Lunenburg, Nottoway, and Prince Edward (Table 2.1). These rural counties, located in the southern central region of the state, cover about 3,156 square miles (US Census Bureau, 1990). The Town of Farmville in Prince Edward County is the “heart” of the region and home to the health district office, two universities, and more commercial development than the surrounding counties.

The counties of Piedmont Virginia are organized as the Piedmont Health District and share similar demographics, thus the counties will be considered collectively as a target area. The Piedmont Virginia population is older, lower income, and less insured than those of the Komen Central Virginia service area, the State of Virginia, and the US (Table 2.4, Table 2.5). The percent of residents who have not graduated from high school is higher than the State of Virginia and the US (Table 2.5). Most women in the Piedmont region are White, and the percent of the female population age 50 and over is higher than that of the State (Table 2.4).

Amelia County is identified in the Komen Central Virginia QDR as highest priority for intervention to achieve HP2020 targets for late-stage incidence of breast cancer (Table 2.7). The age-adjusted late-stage incidence rate of 67.4 per 100,000 far exceeds that of the state (43.9) and the HP2020 goal of 41.0. The age-adjusted incidence rate has increased 3.5 percent annually (Table 2.1). Too little data were available to determine the death rate and mammography screening behavior for the county (Table 2.1, Table 2.3). Amelia County is rural and medically underserved, with less than 22 percent of the population finishing high school (Table 2.5).

Appomattox County is identified in the QDR as highest priority for intervention to achieve HP2020 targets for late-stage incidence (Table 2.7). Over half of breast cancer cases in the county are diagnosed at Stage III or IV, and the trend indicates it may take 13 years or longer to reach the HP2020 goal of 41.0 (Table 2.1, Table 2.7). Too little data were available to determine the death rate and mammography screening behavior for the county (Table 2.1, Table 2.3). The percent of unemployed residents in rural Appomattox is 9.4 (Table 2.5). Lunenburg County is classified in the QDR as highest priority for intervention to achieve HP2020 targets for late-stage incidence of breast cancer (Table 2.7). The late-stage incidence rate of 48.9 percent is well over the state rate of 43.9, with an annual increase of 17.8 percent (Table 2.1). Too little data were available to determine the death rate and mammography screening behavior for the county (Table 2.1, Table 2.3). Over 45 percent of the county's female population is age 50 or over (Table 2.4). Lunenburg has one of the largest populations of adults with less than a high school degree in the Komen Central Virginia service area (Table 2.5). Nottoway County is labeled in the QDR as highest priority for intervention to achieve HP2020 targets for late-stage incidence of breast cancer (Table 2.7). The age-adjusted late-stage rate of 54.0 is trending slightly upward (Table 2.1). Too little data were available to determine the death rate and mammography screening behavior for the county (Table 2.1, Table 2.3). A quarter of the population of Nottoway County has less than a high school education, and over 18 percent are uninsured (Table 2.5). Women age 50 and over make up 42.3 percent of the population, and more than 38 percent of females in Nottoway County are Black/African-American (Table 2.4).

Prince Edward County is identified in the QDR Table 2.7 as medium high priority with a breast cancer death rate of 35.3 and a late-stage diagnosis rate of 45.2 (Table 2.1). Data suggest it may take 13 years or longer for Prince Edward County to achieve the HP2020 death rate target of 20.6 (Table 2.7). Too little data were available to determine the mammography screening behavior for Prince Edward County (Table 2.3). Over 19 percent of the county population has income below 100 percent poverty, and 21.1 percent has less than a high school education (Table 2.5).

Buckingham, Charlotte, and Cumberland Counties are classified as "Undetermined" for intervention in the Komen Central Virginia QDR (Table 2.7). Breast cancer death rate and mammography screening statistics for the counties are not available (Table 2.1, Table 2.3). Five-year data collected from the Virginia Cancer Registry (2014) reveal that Buckingham, Charlotte, and Cumberland Counties each have an average of two to three late-stage breast cancer diagnoses per year (Table 2.8). The age-adjusted rates and trends have not been calculated.

According to Table 2.3, 63.2 percent of women in Buckingham County report having received a mammography screening within the past two years; the confidence interval suggests that the data reliability is questionable. The populations in the three rural and medically underserved counties of Buckingham, Charlotte, and Cumberland have less high school education, less income, and less insurance coverage than the populations of Virginia and the US (Table 2.5). Since data for several of the Piedmont Virginia counties were not available in the QDR, breast cancer death rates by race were collected at the health district level from the Virginia Division of Health Statistics (VDHS). The VDHS data revealed that the Piedmont Health District breast cancer death rate of 31.1 per 100,000 is the highest of the fourteen health districts in the Komen Central Virginia service area and is higher than the State rate of 22.7 (Table 2.9).

The statistical review of Piedmont Virginia compels a qualitative analysis to further study:

- Mammography screening prevalence
- What breast health resources (financial, educational) are available to residents
- Where residents are receiving breast health care in this health professional shortage area (Figure 2.3)
- Why there is no Breast and Cervical Cancer Early Detection Program in the area

### ***Southside Virginia***

The medically underserved, mostly rural region of Southside Virginia borders the North Carolina state line and includes the City of Emporia and the counties of Brunswick, Greensville, Halifax, and Mecklenburg. The City of Emporia is located in Greensville County; however, the statistics are reported separately in the Komen Central Virginia QDR. More than 51,000 women live in the 2,370 square mile area (Table 2.1; US Census Bureau, 1990).

Brunswick, Greensville, Halifax, and Mecklenburg Counties and City of Emporia are grouped together as a target area because they share similar population characteristics and are all classified as medically underserved (Table 2.4, Table 2.5). The Black/African-American populations in the counties of Southside Virginia are among the largest in the Komen Central Virginia service area (Table 2.4). Given the disparities in breast cancer deaths among Black/African-American women, this area of Virginia is important to target. Across the Southside Virginia counties, between 52.0 and 60.4 percent of the female population is age 40 or older (Table 2.4). The percentages of the populations in Southside Virginia with income below 100 percent poverty level and with less than a high school education exceed those of the state and the US (Table 2.5).

In Table 2.7 of the QDR, Brunswick County is classified as highest priority for intervention in meeting HP2020 goals for breast cancer death rate (20.6) and late-stage diagnosis rate (41.0). The county death rate of 31.1 exceeds the state rate of 24.0 and the US rate of 22.6. The late-stage diagnosis rate (37.3) shows an increasing trend (Table 2.1). Mammography screening data were not available for Brunswick County. More than half of the female population of Brunswick County is Black/African-American and age 40 or over (Table 2.4). The percentages of unemployed and uninsured residents exceed those for the state and the US (Table 2.5). Brunswick County has one of the largest populations with less than a high school education in the Affiliate service area (Table 2.5). Almost one-fourth of the residents have income below 100 percent poverty, and nearly 12 percent are unemployed (Table 2.5).

Mecklenburg County is identified as high priority for intervention in meeting HP2020 goals for breast cancer death rate and late-stage diagnosis rate. The death rate of 25.8 and the late-stage diagnosis rate of 53.0 exceed those of the state and the US (Table 2.1). According to Table 2.3, more than 87 percent of women reported having a screening mammogram in the last two years. More than one third of the women in Mecklenburg are Black/African-American, and almost one-fourth are age 65 or over (Table 2.4). Uninsured residents represent 18.5 percent of the population (Table 2.5).

Halifax County is identified as medium high priority for intervention in meeting HP2020 goals because it is well on its way to reaching late-stage diagnosis targets, but very far from attaining a reduction in the breast cancer death rate (Table 2.7). While the late-stage diagnosis rate of 43.4 is similar to those of the state and US, the death rate of 27.2 is higher than the rates for the state and the US (Table 2.1). According to Table 2.3, more than 80 percent of women reported having a screening mammogram within the last two years; however, the confidence interval was wide. Women age 40 and over represent 58.3 percent of the Halifax County population, while 38.1 percent are Black/African-American (Table 2.4). More than one-fourth of the population has less than a high school education, 10.6 percent are unemployed, and 17.2 percent have no insurance (Table 2.5).

The intervention priority for Emporia City and Greensville County is “Undetermined” due to small numbers. The data for these areas should be considered in combination, since Emporia is the only city within Greensville County. When data for both localities are combined, the number of late-stage cases for the five-year period of 2007-2011 is 29 (Table 2.8). The combined population of Emporia and Greensville and the five-year average of ~5 cases are similar to the population and late-stage count for Brunswick County (Table 2.8). Death rate and screening data for Emporia and Greensville are incomplete and will need to be explored during qualitative data analysis (Table 2.1, Table 2.3).

At 63.2 percent, Emporia has the largest population of Black/African-Americans in the Komen Central Virginia service area (Table 2.4). More than 20 percent of the female population is age 65 plus (Table 2.4). With an unemployment rate of 14.1 percent and with 28.9 percent of the population receiving income below 100 percent poverty, Emporia ranks second highest in the Affiliate service area for those indicators (Table 2.5). More than 27 percent of the population has less than a high school education (Table 2.5).

The female population of Greensville County is 59 percent Black/African-American and 19.5 percent age 65 or more, exceeding the percentages for the same characteristics at the state and US level (Table 2.4). More than 28 percent of the population has less than a high school education, and 18.4 percent have income less than 100 percent poverty (Table 2.5).

The statistical review of Southside Virginia directs a qualitative analysis to explore:

- Why screening percentages in Halifax are better than those for the state and US, yet the death rate is high (Table 2.1, Table 2.3)
- What are screening behaviors and the death rate from breast cancer in Emporia and Greensville County
- What breast health resources (financial, educational) are available to residents
- Where residents are receiving care in this primary care health professional shortage area (Figure 2.3)

# Health Systems and Public Policy Analysis

## Health Systems Analysis Data Sources

Komen Central Virginia used a variety of internet, phone, and literature sources to compile health systems information about the three target areas: Richmond Metropolitan Area, Piedmont, and Southside, Virginia. A list of mammography facilities, hospitals, health departments, community health centers, free clinics, support groups, hospice programs, and other cancer support programs was created. Contact information and services offered by each organization were recorded.

Mammography facilities certified by the US Food and Drug Administration (FDA) were found by searching “Virginia” at <http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfMQSA/mqsa.cfm>. Each facility listed legally provides and performs mammograms. Two mobile mammography vans visit the Piedmont, Virginia region, but are not headquartered in that area. Phone calls to both organizations revealed the van schedule.

Every Woman’s Life Program (EWL) providers were identified through a search by county of the Virginia Department of Health interactive map: [http://www.vdh.virginia.gov/ofhs/prevention/ewl/provider\\_map.htm](http://www.vdh.virginia.gov/ofhs/prevention/ewl/provider_map.htm). The number of screening slots allocated to each target area was submitted by the EWL Director Christina Benton.

Information about the hospitals in the target areas was collected from the Data.Medicare.Gov website at <https://data.medicare.gov/Hospital-Compare/Hospital-General-Information/xubh-q36u>. The list was filtered by state and sorted by city/county to identify hospitals in the target areas. Additional information was gathered about the services offered by reviewing each hospital website and by conducting a “simple search” by state of Virginia on the American

College of Surgeons website:

[http://datalinks.facs.org/cpm/CPMAApprovedHospitals\\_Search.htm](http://datalinks.facs.org/cpm/CPMAApprovedHospitals_Search.htm).

County health departments were found on the Virginia Department of Health website at <http://www.vdh.virginia.gov/Epidemiology/Surveillance/CountySearch/Default.aspx>. Each district was searched, and local health departments were contacted by phone to determine the services offered.

Information about Federally Qualified Health Centers (FQHC) - public and private nonprofit health care organizations that receive government funding - was gathered by searching the Health Resources and Services Administration (HRSA) website at [http://findahealthcenter.hrsa.gov/Search\\_HCC.aspx?byCounty=1](http://findahealthcenter.hrsa.gov/Search_HCC.aspx?byCounty=1). Each community health center (CHC) was found by searching the state and county. More information about each health center’s services was collected by phone and through the CHC’s website.

Free and charitable health clinics were searched on the accredited Virginia Association of Free Clinics website at <http://www.vafreeclinics.org/find-a-free-clinic.asp>.

The Bon Secours Richmond Health System prepared the list of support groups collected for the health systems inventory. The list provided the time, place, and contact information for all

support groups available in the Richmond metropolitan area.

All hospice providers in the target areas were found in the *Directory of Hospice Providers in Virginia* published by the Virginia Department of Health Office of Licensure and Certification at: <http://www.vdh.virginia.gov/OLC/Facilities/documents/2012/pdf/2012%20Hospice%20directory%20final.pdf>.

Additional community service providers have been added to the health systems inventory through the Affiliate's previous knowledge or relationship.

Komen Central Virginia searched the following websites to determine the Quality of Care Certifications/Accreditations of service providers in the target areas.

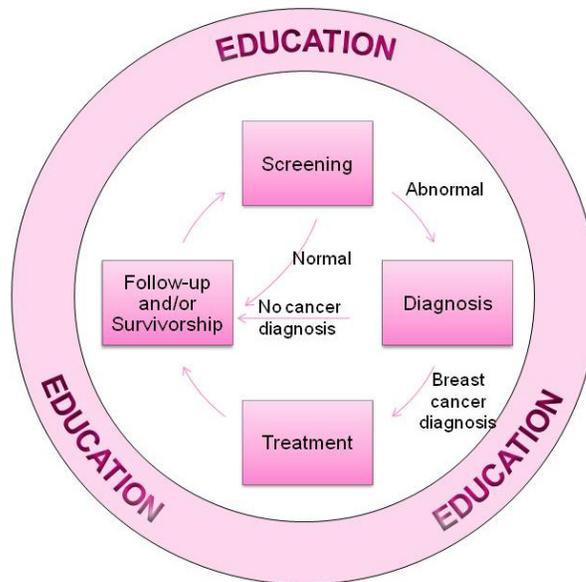
- American College of Surgeons  
[http://datalinks.facs.org/cpm/CPMApprovedHospitals\\_Search.htm](http://datalinks.facs.org/cpm/CPMApprovedHospitals_Search.htm)
- American College of Surgeons National Accreditation Program for Breast Centers  
[http://datalinks.facs.org/napbc/napbc\\_results.cfm?STATECODE=VA](http://datalinks.facs.org/napbc/napbc_results.cfm?STATECODE=VA)
- American College of Radiology Breast Imaging Centers of Excellence (only centers receiving the gold seal were noted)  
<http://www.acr.org/Quality-Safety/Accreditation/Accredited-Facility-Search>
- National Cancer Institute (NCI) Designated Cancer Centers  
<http://www.cancer.gov/researchandfunding/extramural/cancercenters/find-a-cancer-center>

Once all providers had been identified, the list for each target area was reviewed. Observations were made about the lack of resources in a particular county or target area. To determine the length of time needed to travel for services, a search for directions between two locations was conducted on [www.Mapquest.com](http://www.Mapquest.com).

### **Data Limitations**

The Komen Affiliate worked to identify all providers of services related to breast care in the three target areas. Behavioral, dental, and children's facilities were not included. The following data limitations should be considered when reviewing the health systems data collected:

- Some breast health/cancer providers may not be included.
- Information about services provided by the health care providers may be inaccurate.
- Organizations that do not provide services related to the continuum of care may be included.
- Health care services not in the continuum of care were excluded (e.g., education, outreach).
- Travel estimates between counties and the closest hospital may be under/overstated.



**Figure 3.1.** Breast Cancer Continuum of Care (CoC)

The Breast Cancer Continuum of Care (CoC) in Figure 3.1 is a model that illustrates how a woman typically moves through the health care system for breast care. A woman would ideally move through the CoC quickly and seamlessly, receiving timely, quality care in order to have the best outcomes. Education can play an important role throughout the entire CoC.

While a woman may enter the continuum at any point, ideally, a woman enters the CoC by getting screened for breast cancer – with a clinical breast exam or a screening mammogram. If the screening test results are normal, she loops back into follow-up care, where she receives another screening exam at the recommended interval. Education plays a role in both encouraging women to get screened and reinforcing the need to continue routine screening thereafter.

If a screening exam yields abnormal results, diagnostic tests are needed - possibly several - to determine if the abnormality is in fact breast cancer. These tests might include a diagnostic mammogram, breast ultrasound, or biopsy. If the tests are negative (or the finding is benign) and breast cancer is not found, she proceeds to the follow-up loop and returns for screening at the recommended interval. The recommended interval is 12 months for most women and may range from three to six months for some. Education plays a role in communicating the importance of proactively getting test results, keeping follow-up appointments and understanding what it all means. Education can empower a woman and help manage anxiety and fear.

If breast cancer is diagnosed, a woman progresses to treatment. Education can inform the patient about treatment options, how pathology reports determine the best options for treatment, side effect management, and what questions to ask health care providers.

For some breast cancer patients, treatment may last a few months; for others, it may last years. While the CoC model shows that follow-up and survivorship come after treatment ends, they actually may occur at the same time. Follow-up and survivorship may include navigating

insurance issues, locating financial assistance, and managing symptoms such as pain, fatigue, sexual issues, bone health, etc. Education may address topics such as making healthy lifestyle choices, long term effects of treatment, managing side effects, the importance of follow-up appointments, and communication with health care providers. Most women will return to screening at a recommended interval after treatment ends, or for some, during treatment (such as those taking long term hormone therapy).

There are often delays in moving from one point of the continuum to another – at the point of follow-up of abnormal screening exam results, starting treatment, and completing treatment – that can all contribute to poorer outcomes. There are also many reasons why a woman does not enter or continue in the breast cancer CoC. These barriers can include lack of transportation, long waits for appointments, inconvenient clinic hours, language barriers, fear, lack of information, and even the wrong information (myths and misconceptions). Education can address some of these barriers and help a woman progress through the CoC more quickly. The following summaries describe the health system resources identified in each of the three target areas by Komen Central Virginia. Current and potential Affiliate partnerships are also discussed.

### ***Richmond, Virginia Metropolitan Area***

The Richmond Metropolitan Area, consisting of the City of Richmond and the surrounding counties of Chesterfield, Goochland, Hanover, and Henrico, offers the full range of breast health and breast cancer resources (Figure 3.2). Patients in the area have access to screening, diagnostic, treatment, and support services through three major hospital systems and a Veteran's Administration (VA) hospital. Seven free clinics, seven federally qualified community health centers (CHCs), and six health departments with five satellite locations offer clinical breast exams and referral to mammography. Thirty-two certified mammography facilities are available through the hospitals or standalone settings. According to the Virginia Department of Health, there are approximately 770 Every Woman's Life Program (EWL) free screening slots for women age 40-64 and about 100 slots for women age 18-39 in need of diagnostics. There are no mobile mammography vans in the area.

In the City of Richmond, four hospitals are available to residents. Bon Secours Richmond Community Hospital and HCA Retreat Hospital both offer screening and diagnostic services. Virginia Commonwealth University (VCU) Massey Cancer Center, an NCI-designated cancer center of VCU Health Systems, offers all services in the breast cancer continuum of care, including patient navigation. The VA hospital also provides screening, diagnostic, treatment, and survivorship support services.

Three free clinics and five CHCs in Richmond provide clinical breast exams and referrals to mammograms. The Richmond Health Department operates a main clinic plus five resource centers in low income housing developments that can provide clinical breast exams. In addition to mammography facilities in the four hospitals, two standalone imaging centers can be accessed in the City of Richmond.

The area is fortunate to have Access Now, a nonprofit organization that provides patient navigation to specialty services. Low income patients in the Richmond Metropolitan Area are qualified and referred by CHCs and free clinics to this volunteer network of physicians who provide breast cancer diagnosis and treatment services at no cost.

Additional breast cancer support groups in the City meet at a local church and the Sisters Network Central Virginia office. There are three hospice organizations located in Richmond. In Chesterfield County, Bon Secours provides the full continuum of breast cancer care through St. Francis Medical Center and the Watkins Center. HCA offer screening, diagnosis, treatment, and survivorship support through its Chippenham Hospital and the Thomas Johns Cancer Hospital at Johnston Willis. VCU Massey Cancer operates a satellite cancer center in Chesterfield that provides the full range of breast cancer services. Patients in southern Chesterfield may be accessing breast cancer services at Southside Regional Medical Center in the nearby city of Petersburg.

A CHC and the Chesterfield health department both provide women with clinical breast exams and referral to mammograms. Screening and diagnostic services are available at three independent facilities in Chesterfield County.

Two important survivorship support organizations have offices in Chesterfield County, but serve the Richmond metropolitan area. LINC, the Legal Information Network for Cancer, provides legal and financial assistance to cancer patients according to their ability to pay. Nueva Vida navigates Latinas through cancer diagnosis and treatment and offers a support group to survivors.

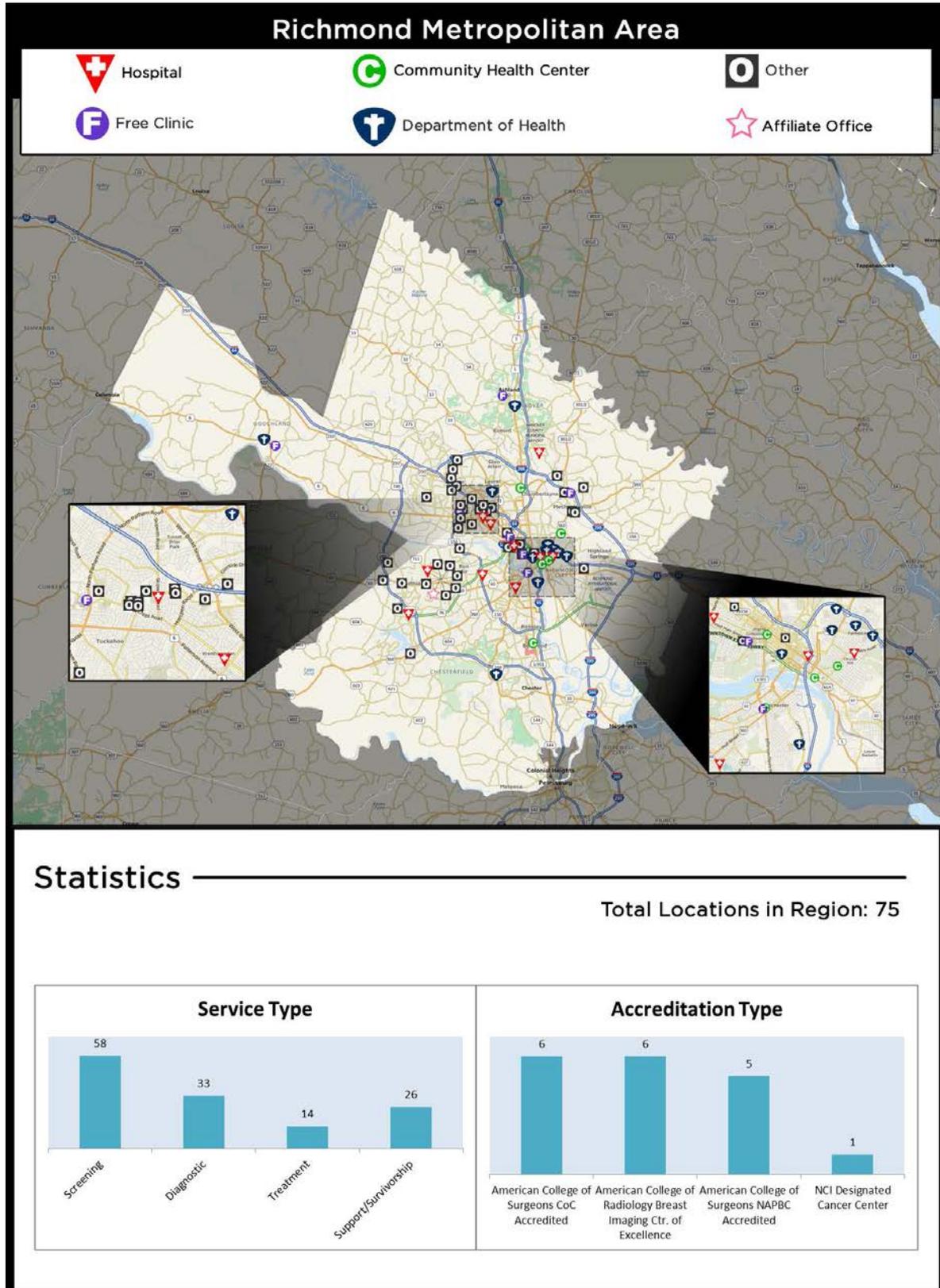
Rural Goochland County has one free clinic and a health department that provide clinical breast exams and referral to mammogram. Women must travel to Chesterfield, Henrico, or Richmond to access additional breast cancer services. In the western part of the county, women may be seeking cancer care at the University of Virginia (UVA) public hospital in Charlottesville, Virginia. In Hanover County, low income women can receive primary care at two free clinics. The health department recently became an EWL provider and has 40 slots for women age 40-64 and 10 slots for 18-39 year olds who are symptomatic. Bon Secours Memorial Regional Hospital provides the full continuum of breast care, and VCU Massey's Hanover Medical Park provides radiation treatment. Four independent facilities in Hanover County provide screening and diagnostics.

Geographically, Henrico County wraps the City of Richmond both east and west (see Figure 1.2). In western Henrico County, two CHCs, a free clinic, and a health department provide clinical breast exams and referral to mammography. Bon Secours St. Mary's and HCA Henrico Doctors' Hospital both provide breast cancer screening, diagnostic, treatment, and survivorship support services. Five standalone imaging centers and three women's health practices that offer mammography are also located in western Henrico County. Breast cancer patients have access to four active support groups in western Henrico. Families can access hospice care through six organizations.

In eastern Henrico County, the only breast care available to low income residents is at the health department, where women can receive a clinical breast exam and referral to mammography.

Komen Central Virginia is an active member of the Central Virginia Breast Cancer Coalition that meets monthly in Richmond. Komen provides support to its advocacy efforts and annual cancer survivorship conference planning. The Affiliate has provided grant support to many nonprofit health organizations in metropolitan Richmond and plans to continue working with the Sisters

Network and current and former grantee hospitals and free clinics to impact breast cancer in the target area. New or enhanced relationships could be cultivated with the VA Hospital, the faith community, The Links, Inc., the health departments, and the CHC locations of Capital Area Health Network.



**Figure 3.2.** Breast Cancer Services Available in Richmond, Virginia Metropolitan Area

### ***Piedmont Virginia***

In the Piedmont Virginia region of Amelia, Appomattox, Buckingham, Charlotte, Cumberland, Lunenburg, Nottoway, and Prince Edward Counties, basic affordable care is available to rural residents primarily through the health department, a free clinic, and two networks of federally qualified CHCs (Figure 3.3). The one hospital in the area is the only mammography provider and offers limited breast cancer treatment. For the most part, patients must travel to Lynchburg, Richmond, or South Hill to access the full range of breast cancer services.

There are no EWL providers of free mammograms in the Piedmont area. Women can access mammography through mobile mammography vans operated out of Charlottesville and Lynchburg.

In Amelia County, two CHCs and the health department provide clinical breast exams for women. Patients must travel to neighboring Chesterfield County for additional breast cancer services.

In Appomattox County, the health department provides clinical breast exams and the mobile mammography van from Centra Health visits two private practice offices every month. Patients must travel to nearby Lynchburg for further breast cancer services.

In Buckingham County, a CHC and the health department provide primary care for women. The CHC provides screening mammograms and sends uninsured, low income patients almost an hour away to UVA in Charlottesville for diagnostics and treatment.

Charlotte County also has a CHC and a health department; the mobile mammography van visits the CHC monthly. Women may travel at least an hour to access specialty services.

There are two CHCs and a health department location in Lunenburg that provide clinical breast exams and referral to a mammogram. Women needing further services must travel to the hospitals in South Hill, (40 minutes), the Richmond area (~1.5 hours), or North Carolina (up to two hours).

In Nottoway County, women can access clinical breast exams at the health department. If additional services are needed, a patient may have to travel at least an hour to the hospitals in South Hill or the Richmond area.

The town of Farmville in Prince Edward County is home to a CHC, a free clinic, and the health department which all provide clinical breast exams and referrals for mammography screening. The mobile mammography van from Centra Health in Lynchburg visits the local community college once a year, and a mobile mammography van from UVA in Charlottesville goes to Farmville twice a year.

The only hospital in the Piedmont area, Centra Southside Community Hospital, offers screening and diagnostic mammograms, breast surgery, and chemotherapy. Patients must travel at least an hour to the cities of Charlottesville, Lynchburg, Richmond, or South Hill for additional specialty services.

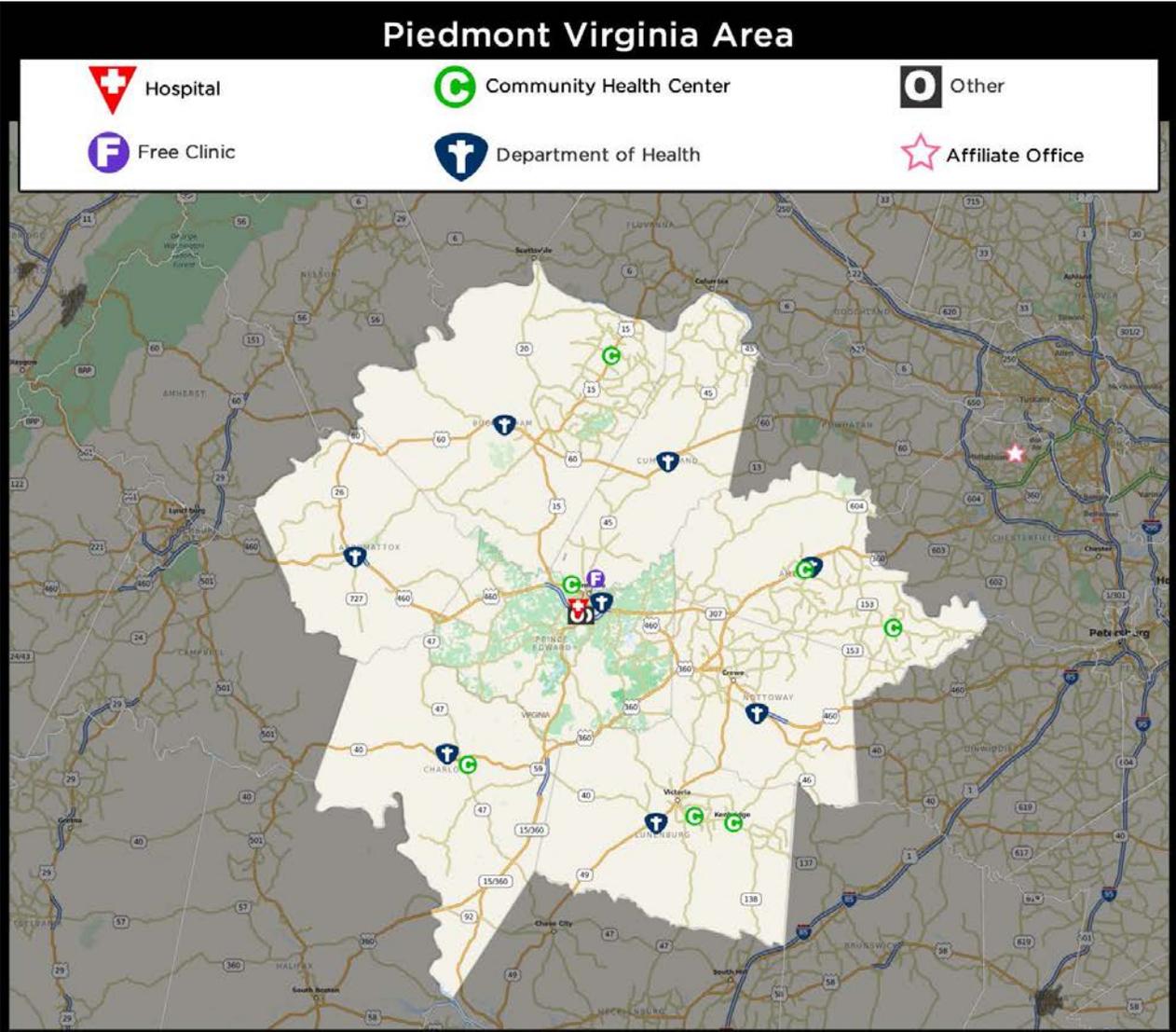
Additional breast cancer service providers in Farmville include the LIVESTRONG program at the Southside Virginia Family YMCA and two hospice programs. A support group for cancer patients was established at the hospital in September 2011, but no longer exists.

Over the years, Komen Central Virginia has provided grant funds for free breast cancer screenings through the Piedmont Health District, Heart of Virginia Free Clinic, Centra Southside Community Hospital, and four locations of Central Virginia Health Services, a federally qualified CHC network. The Affiliate will seek to advance collaboration with these previous grantees and will explore new relationships with other organizations.

Academic institutions in the Piedmont region could serve as valuable partners. Prince Edward County is home to two colleges. Longwood University, a state-assisted institution, enrolls 4,800 students and has an undergraduate nursing program. Hampden-Sydney College is a small, private all-male school. Southside Virginia Community College, located in Charlotte County, is the site of an annual mobile mammography clinic.

The YMCA, the faith community, the Senior Navigator Center at the hospital, the CHC network of Southern Dominion Health Systems, the Virginia Cooperative Extension, the Barksdale Foundation, and the American Cancer Society may also be viable partners in making an impact on breast cancer in the Piedmont area.

Komen Central Virginia will continue to work with VCU Massey Cancer Center in Richmond to build on their comprehensive cancer needs assessment of the Piedmont Health District conducted in 2011. (The VCU assessment did not include Appomattox County which is being studied in the Komen 2015 Community Profile.) Some of the priority needs identified by VCU for Piedmont include: development of a community health task force, promotion and removal of barriers to early cancer detection, patient navigation, innovative transportation solutions, and development of community resources to support cancer patients and their caregivers (VCU Massey Cancer Center, 2012).



## Statistics

Total Locations in Region: 19

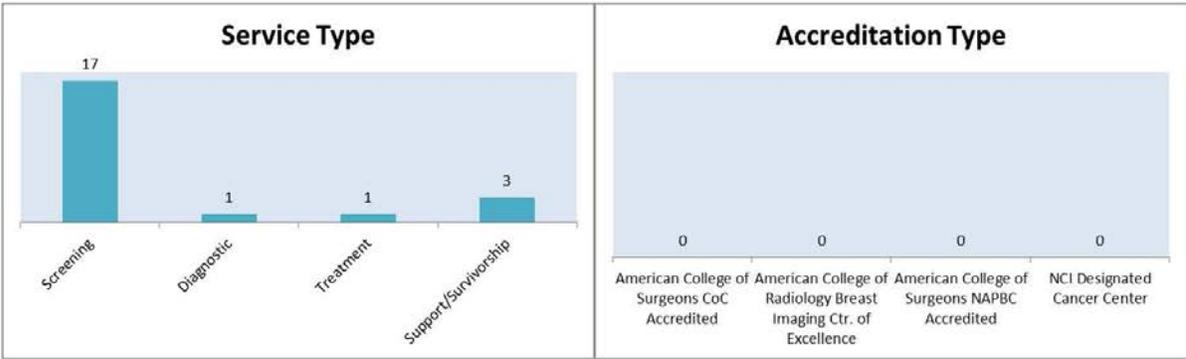


Figure 3.3. Breast Cancer Services Available in Piedmont Virginia Area

## ***Southside Virginia***

The health care resources in medically underserved Southside Virginia (HRSA, 2014) include three hospitals, three CHCs, a health department in each county, and over 100 EWL slots (Figure 3.4).

In Brunswick County, women can receive a clinical breast exam and referral to mammogram at the CHC and the health department. The health department is an EWL program participant. In Emporia/Greenville, Southern Virginia Regional Medical Center offers breast cancer screening and diagnostics, general surgery, and chemotherapy. Patients must travel to other facilities to access radiation and breast reconstruction. A CHC and the health department provide women with a clinical breast exam and a referral for a mammogram. The Greenville Memorial Foundation provides mammogram vouchers through the health department to women in need.

Sentara Halifax Regional Hospital is located in the town of South Boston in Halifax County. The hospital is an EWL program participant and provides breast cancer screening and diagnostics, general surgery, and chemotherapy. Patients must travel at least an hour to cancer centers in Lynchburg or North Carolina to access radiation and breast reconstruction.

The Halifax County Health Department is an EWL provider and offers clinical breast exams and referrals for a mammogram. The Halifax County Cancer Association provides financial assistance to cancer patients residing in Halifax County, regardless of need.

In Mecklenburg County, women can receive a clinical breast exam and referral for a mammogram at a CHC, at VCU Community Memorial Healthcenter (CMH), or at the health department, which is also an EWL program provider. CMH in South Hill, Virginia, offers breast cancer education, screening, diagnostics, and surgery. After many years in partnership, CMH and VCU Health System recently joined operations. With VCU Massey Cancer Center, CMH offers outpatient chemotherapy and radiation services at a satellite location.

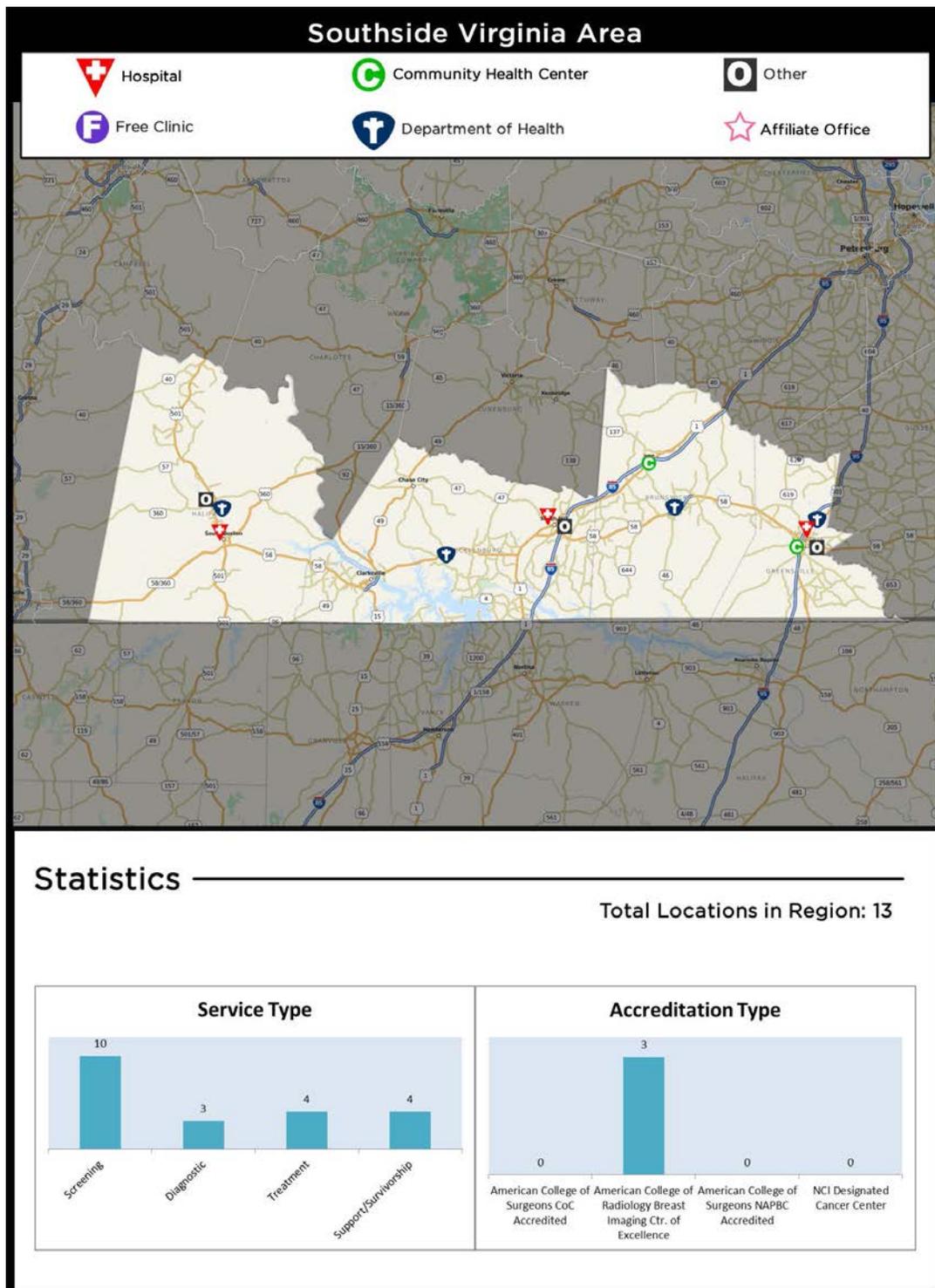
Since 2004, Komen Central Virginia has provided grant funds for the Pink Power breast cancer screening and education program at CMH. Over the years, Komen Central Virginia has also supported grant programs with Halifax Regional Hospital, Halifax County Cancer Association, Southside Community Health Center, and the Family YMCA of Emporia-Greenville. The Affiliate will leverage these relationships to ensure women are progressing through the continuum of care.

Komen Central Virginia will continue to work with VCU Massey Cancer Center in Richmond to build on their comprehensive cancer needs assessment of the Southside Health District completed in 2013. (The VCU assessment did not include Emporia and Greenville County which are being studied in the Komen 2015 Community Profile.)

As a result of their assessment, VCU Massey opened two cancer resource centers: one in Emporia City (which is now closed) and one in Lawrenceville, Brunswick County. The centers have provided residents with current information regarding cancer risk reduction, detection, treatment, and survivorship support. Other priorities identified in VCU's cancer needs assessment of the Southside Health District include: awareness and support of wellness and cancer resources in the area, continuing education for primary care providers, affordable

transportation, patient navigation, survivor support, and financial assistance (VCU Massey Cancer Center, 2013).

Potential new partnerships in Southside Virginia may include the faith community, the American Cancer Society, the Greenville Memorial Foundation, and the facilities belonging to the three CHC networks of Central Virginia Health Services, Piedmont Access to Health Services (PATHS), and Southern Dominion Health Systems.



**Figure 3.4.** Breast Cancer Services Available in Southside Virginia Area

## **Public Policy Overview**

### ***National Breast and Cervical Cancer Early Detection Program (NBCCEDP)***

The Breast and Cervical Cancer Mortality Prevention Act of 1990 (Public Law 101-354) established the Centers for Disease Control and Prevention's (CDC) National Breast and Cervical Cancer Early Detection Program (NBCCEDP). The program provides breast and cervical cancer screening exams to underserved women, including those who are older, have low incomes, or are members of racial and ethnic minority groups. The program operates in all 50 states, the District of Columbia, five US territories, and 11 American Indian/ Alaska Native organizations.

### ***Virginia Breast and Cervical Cancer Early Detection Program***

The Virginia Breast and Cervical Cancer Early Detection Program, also known as Every Woman's Life (EWL), has been screening women since 1997. The mission of the program is to provide high-quality breast and cervical screening, diagnostic, and health services to low-income, uninsured women in the most cost efficient manner.

To be eligible to receive screening services, women must live in Virginia, be between the ages of 18-64, have no health insurance or be underinsured, and have an annual income at or below 200 percent of the Federal Poverty Level (FPL). In July 2006, upon the receipt of state funds, the program expanded services to younger women between the ages of 18-39 that are symptomatic for breast and/or cervical cancer. All other eligibility criteria for EWL remain the same (i.e., health insurance status, income, and residency).

Women 40-64 years of age receive routine breast and cervical screening exams, including a Pap test, pelvic exam, clinical breast exam, and mammogram. Women with an abnormal screening result receive additional diagnostic tests to rule out the presence of cancer. If pre-cancer or cancer is diagnosed, women are referred to the Breast and Cervical Cancer Prevention and Treatment Act (BCCPTA) for complete Medicaid coverage. In contrast, women 18-39 years of age are enrolled into the program if they have an abnormal breast or cervical screening result (e.g., abnormal Pap test result, palpable mass confirmed through a clinical breast exam) and are in need of further diagnostic procedures. If pre-cancer or cancer is diagnosed, the woman is referred for treatment coverage under the BCCPTA.

The program is operated through 33 local providers with statewide oversight provided by EWL staff at the Virginia Department of Health. Local EWL providers include health departments, free clinics, federally qualified health centers and large health systems. The 33 providers in turn have an extensive network of sub-providers that provide screening and diagnostic services in almost every locality across the state. Women in need of EWL services can locate a provider local to them through the EWL toll free line, 1-866-395-4968 (1-866-EWL-4YOU).

EWL services are funded through the CDC's National Breast and Cervical Cancer Early Detection Program and state general funds. Virginia receives approximately \$2.4 million annually in grant funds to implement EWL. Approximately 88 percent of grant funds (\$2.1 million) are passed directly on to EWL providers to provide screening and diagnostic services to low-income, uninsured or underinsured women 40-64. Since 2006, EWL has received \$405,176 in general state funds to provide diagnostic services to low-income, uninsured or underinsured women 18-39 who are symptomatic.

Since 1998, EWL has provided services to 50,595 low-income, uninsured women. The program has performed 42,906 Pap tests, 82,440 clinical breast exams, and 86,306 mammograms. For screens that resulted in abnormal findings, the program has performed 35,829 diagnostic breast procedures and 5,640 diagnostic cervical procedures. More than 800 women have been diagnosed with cervical dysplasia and another 65 with invasive cervical cancer, and 1,520 women have been diagnosed with breast cancer. The 2,264 women requiring treatment for cancer or a precancerous condition have been referred to Medicaid for treatment under the Breast and Cervical Cancer Prevention and Treatment Act (BCCPTA). Women who did not meet the eligibility criteria for the BCCPTA (e.g. non US citizen) were provided pro-bono or sliding scale treatment through charity care or other means.

***It is estimated that 58,297 women age 40-64 in Virginia are eligible for the EWL program, but funding will allow for only 6,767 – or 12 percent - to be served in 2014*** (Virginia Department of Health, 2014).

Through their grants program, Komen Affiliates have worked to fill the remaining need by supporting providers who offer the EWL Program. With Komen grants for screening and diagnostics, EWL program providers are able to serve more women.

#### *Breast and Cervical Cancer Prevention and Treatment Act*

The Breast and Cervical Cancer Prevention and Treatment Act (BCCPTA), Public Law 106-354, was signed into law on October 24, 2000 by President William Clinton, establishing a new state coverage option under Medicaid. This important legislation permitted states to extend Medicaid to uninsured women under 65 who were screened and/or diagnosed with breast or cervical cancer under the Centers for Disease Control and Prevention (CDC) funded National Breast and Cervical Cancer Early Detection Program (NBCCEDP). The BCCPTA Medicaid coverage option was a groundbreaking effort to use population-wide public health screening programs like the NBCCEDP as pathways for publicly funded health insurance, such as Medicaid, for uninsured women diagnosed with an illness.

In an effort to allow each state the flexibility to reach as many women as possible within the constraints of their own systems, three different ways by which a woman could be considered “screened under the NBCCEDP” were established. The following became known as the three treatment options:

**Option 1:** A woman whose clinical services are provided all or in part by the CDC (Title XV funds), is eligible for enrollment into the BCCPTA.

**Option 2:** A woman who is screened and/or diagnosed under a provider who receives CDC (Title XV) funds but whose clinical services were not paid for by CDC (Title XV funds).

**Option 3:** A woman who is screened and diagnosed by any provider that has been authorized by the state (Title XV grantee) to provide screening activities.

In 2001, the Virginia General Assembly passed legislation to allow for Option 1 treatment service. As a result, women in Virginia must be screened and/or diagnosed through the Virginia Breast and Cervical Cancer and Early Detection Program (VABCCEDP, known as EWL in Virginia) in order to be eligible for treatment under the BCCPTA. However, not all women diagnosed with breast and/or cervical cancer will be eligible for the BCCPTA, such as illegal

aliens, and women with creditable health insurance or deemed eligible for another Medicaid covered group. EWL providers ensure that women not eligible for medical assistance under the BCCPTA receive appropriate treatment services; connections to community resources, such as charity care, faith-based organizations, and health institutions that serve indigent populations to ensure treatment services are provided.

#### Enrolling EWL Women into BCCPTA

Women who are screened and/or diagnosed with breast or cervical cancer or a pre-cancerous condition, and certified as needing treatment by an EWL provider, may be eligible for payment of that treatment by Medicaid under the BCCPTA. Treatment is defined as all forms of treatment prescribed by a health care professional, including palliative care. The health care professional must determine when the course of treatment is completed. Some clients will have a very short course of treatment, while others may have a prolonged course of treatment.

When a woman is diagnosed with breast or cervical cancer or a pre-cancerous condition and is certified as needing treatment by an EWL health care professional, a BCCPTA Medicaid Application Form is completed by the EWL Coordinator/Case Manager. Both the EWL Coordinator/Case Manager and client must sign and date the form. The completed form is then forwarded to the county or city Department of Social Services (DSS) office where the woman resides. The local DSS office has ten business days to notify the client or the individual's authorized representative of approval or denial of benefits. It is the responsibility of the EWL Coordinator/Case Manager to maintain contact with the woman to ensure that treatment has begun and that any barriers to receiving treatment are addressed.

For women enrolled into Medicaid through the BCCPTA, DSS will re-determine Medicaid eligibility on an annual basis. At the time of the annual re-determination, the woman must work with her health care professional to complete re-determination paperwork verifying continued treatment for breast and/or cervical cancer is necessary. This paperwork is provided by the local DSS office, not the local EWL provider.

Women enrolled into Medicaid through the BCCPTA, receive full Medicaid coverage (i.e., coverage is not limited to the treatment of breast and cervical cancer) for as long as they are in cancer treatment. Medicaid coverage may begin on the first day of the application month or up to three months prior to the month of application providing all Medicaid eligibility criteria are met. A co-pay is associated with Medicaid services and women are responsible for paying the co-pay, which is dependent upon the type of service they receive. For example, for an inpatient hospital stay the co-pay is \$100.00 per admission and \$1.00 per clinic visit.

#### Komen and Virginia BCCEDP

Komen Central Virginia and the Virginia EWL Program enjoy an extensive working relationship. The organizations serve together on the Central Virginia Breast Cancer Coalition and support one another's efforts to promote early detection of breast cancer. The Director of Community Health Programs at the Komen Central Virginia has twice served as a reviewer of the applications submitted by organizations seeking to deliver the EWL Program. The Directors of the EWL Program have served on the Komen Central Virginia Community Profile Team for both the 2009 and 2015 reports, and program staff contributed to the 2011 report. Komen Central Virginia looks forward to a continued partnership with the Virginia EWL Program and its providers to serve women in need.

### **State Cancer Control Programs**

The Center for Disease Control started the National Comprehensive Cancer Control Program (NCCCCP) to help states, tribes, and territories form coalitions to fight cancer. State Comprehensive Cancer Control (CCC) program activities include: implementation of strategies designed to reduce cancer risk, promote healthy lifestyles, ensure access to screenings/diagnostic technologies, and improve the quality of treatment and support services to enhance survivorship.

A key element of CCC is the formation and ongoing work of a CCC coalition. In Virginia, the Cancer Action Coalition of Virginia (CACV) consists of diverse organizations who are involved in cancer control and who commit to work together in order to:

- Leverage their collective strengths and resources
- Document areas of greatest need and gaps in cancer related efforts
- Identify efforts that no one organization would do alone, and
- Avoid duplication of activities

CACV was organized by the Virginia Department of Health in 1998 for the purpose of writing a statewide cancer plan. Today, CACV not only develops the state cancer plan, but meets quarterly to inform organizations and individuals about current cancer issues and facilitates statewide collaborations focused on the objectives in the state plan. The plan includes four goals which are managed by four multi-organization action teams: Prevention, Early Detection, Treatment, and Survivorship and Palliative Care. The Virginia State Cancer Plan 2013-2017 goals are:

- **Prevention:** Reduce risks of cancer for all Virginians through awareness, education, and behavior change.
- **Early Detection:** Virginians are diagnosed with cancer at its earliest (local), most curable stage.
- **Treatment:** Virginians with cancer will have access to appropriate and effective cancer treatment and care.
- **Survivorship and Palliative Care:** Optimize the quality of life for every person affected by cancer across the continuum of care.

Komen Affiliates in Virginia are members of the Coalition and are represented on the Early Detection Action Team. Early detection means finding cancer when there are no symptoms or signs of a problem. For many types of cancer, it is easier to treat and cure cancer if it is found early. Members of the Early Detection Action Team work collaboratively towards the goal that Virginians are diagnosed with cancer at its earliest (local), most curable stage. Populations that are medically underserved and socioeconomically disadvantaged with respect to access to care are priorities. Based on Virginia incidence and death data, the Early Detection Team focuses on four cancers: breast, cervical, colon, and prostate. The priority objectives for Early Detection in the 2013-2017 Virginia Cancer Plan are to:

- Increase cancer screening rates among Virginians by 10 percent.
- Increase the dissemination of public information of age-appropriate, evidence-based, comprehensive cancer screening guidelines and resources and encourage an increase in educational activities in the Virginia health districts with the highest death rates.

The mission work of Susan G. Komen aligns with the goals of the Virginia Cancer Plan by empowering people with the knowledge of breast health and ensuring access to quality care for all. Komen Central Virginia will continue as an active member of the coalition by attending quarterly meetings and assisting with the implementation and evaluation of the Early Detection Team objectives. The Affiliate will also monitor the activities of the other three teams (Prevention, Treatment, and Survivorship and Palliative Care) to identify future opportunities for collaboration. Additionally, Komen Central Virginia is proud to have three members of the CACV Board represented on the 2015 Community Profile Team.

### ***Affordable Care Act***

In 2010, the Patient Protection and Affordable Care Act (ACA) was enacted to provide the following benefits to patients:

- Preventive services including mammograms are available at no cost through Medicare and through some new private insurance companies.
- Medicare participants receive help with their drug costs.
- Young adults can stay on their parents' insurance policies until age 26.
- No lifetime limits on health coverage.
- Americans will be able to purchase health insurance through a health marketplace exchange.
- It will become illegal to deny adults (in addition to the earlier provision for children) insurance coverage because of a pre-existing condition.
- Every state will have the option to expand the Medicaid program to cover all low-income individuals at or below 133 percent of the federal poverty level (FPL) (\$15,282 for an individual in 2013).

According to a report on Virginia's uninsured prepared by The Urban Institute for The Virginia Health Care Foundation (2012), prior to the enactment of the Affordable Care Act:

- An estimated 14.2 percent of Virginians under the age of 65, or 984,000 individuals, were without health insurance.
- Nonelderly adults (age 19 to 64) constituted 88.5 percent of the uninsured in Virginia.
- More than 71 percent were part of a working family.
- Over 70 percent of uninsured Virginians were living in families with incomes at or below 200 percent of the federal poverty level.
- Just under half of the uninsured in Virginia were non-Hispanic White (45.8 percent); 24.0 percent were Black/African-American; and 20.0 percent were Hispanic/Latino.

Virginia elected the implementation of a federally-facilitated marketplace insurance exchange, which currently includes nine plans for enrolling citizens of Virginia (Heilbrun, 2014). As of April 19, 2014, 26.3 percent of the estimated potential enrollees, or 216,356 individuals, had selected insurance plans through the exchanges (Kaiser, 2014). The estimate of potential enrollees includes "legally-residing individuals who are uninsured or purchase non-group coverage, have incomes above Medicaid/CHIP eligibility levels, and who do not have access to employer-sponsored coverage" (Kaiser, 2014). The estimate does not include individuals who would be eligible for an expanded Medicaid program.

In Virginia, "Medicaid eligibility for non-disabled adults is currently limited to parents with incomes below 51 percent of poverty, or about \$11,900 a year for a family of four, and adults

without dependent children remain ineligible regardless of their income...Undocumented immigrants remain ineligible to enroll in Medicaid, and recent lawfully residing immigrants are subject to certain Medicaid eligibility restrictions” (Kaiser, January 2014).

The Virginia General Assembly has not opted to expand Medicaid coverage to eligible low income citizens by approving a budget that did not include funds for Medicaid expansion. Nineteen percent of the total population of uninsured adults in Virginia, or 191,000 individuals, fall into this coverage gap (Kaiser, January 2014). The Governor of Virginia has stated that he intends to expand health coverage, with or without legislative approval, using federal funds that are available under the Affordable Care Act (Martz, 2014).

All of the hospital systems in Virginia have advocated for the expansion of Medicaid, because they recognize that everyone should have a medical home where they can receive consistently care. The lack of Medicaid expansion and the coverage of health care costs can potentially result in these outcomes:

- The health of uninsured individuals can suffer severely: lower five-year survival rates, higher late-stage diagnosis rates of cancers, and lower rates for screening tests. (Kaiser, September 2013).
- Medical needs are unmet: 60 percent of low income uninsured had unmet needs, because of financial difficulty in paying for health care (Macri, Lynch & Kenney, 2012). The uninsured receive less preventive care and recommended screenings than the insured. Uninsured older adults (ages 50-64) were far less likely than their insured counterparts to report having been screened for cancer in the past five years (Kaiser, 2013).

According to Komen Central Virginia grantee organizations, health care providers are beginning to notice that newly insured women are not always able to proceed fully through the breast cancer continuum of care. While screening mammograms are covered by insurance under the ACA, diagnostic testing and biopsies are not always paid for. If a woman’s insurance deductible is high, she may be unable to afford, and ultimately access, the additional services.

Uninsured, resident women in Virginia have been routinely referred to the Every Woman’s Life program, a breast and cervical cancer screening program for low income residents. The program works closely with Medicaid when a woman is diagnosed with cancer to cover all treatments. But due to limited government funding, it is estimated that only 12 percent – or 6,767 women in Virginia – who are eligible for the program will be served in 2014 (Virginia Department of Health, 2014).

Through grant funding, Komen has provided much needed screening and diagnostic services for uninsured women in Virginia. However, Komen’s grant funding does not nearly close the gap for the more than 51,000 remaining eligible women who cannot be served by the Every Woman’s Life program. For more information about the Every Woman’s Life program in Virginia, read the section of this report titled, “National Breast and Cervical Cancer Early Detection Program (NBCCEDP).”

While the ACA can provide additional benefits for many Virginians through the newly established insurance marketplace and the potential expansion of Medicaid, there are still those who will fall through the cracks. Undocumented women and those who do not enroll in the

insurance marketplace will need breast health care, but without financial assistance will not be able to access it.

Komen, along with other organizations, has advocated at the state legislative level for the continued funding of the EWL program and the expansion of Medicaid to close the health coverage gap. Until all Virginians have access to affordable health care, Komen will continue its advocacy efforts to ensure the availability of the full range of breast health services to low-income women, including cancer screening, diagnostics and treatment.

### ***Affiliate Advocacy***

Susan G. Komen® recognizes that, in order to achieve its mission, scientific progress must be complemented by sound public policy. Through government action, broad, systemic, lasting change can be made in the fight against breast cancer. This means that Komen—as a patient advocacy organization with first-hand knowledge of how breast cancer touches local communities—must engage policymakers and government as partners in our efforts to end breast cancer forever.

Each year, Komen works to identify, through a broad-based, intensive vetting and selection process, the policy issues that have the greatest potential impact on Komen’s mission. This process includes the collection of feedback from Komen Headquarters leadership, policy staff, and subject matter experts; Komen Affiliates from across the country; advisory groups including the Public Policy Advisory Council (PPAC), Advocates in Science (AIS), and Komen Scholars; and other stakeholders with a vested interest in breast cancer-related issues. The selected issues are the basis for Komen’s state and federal advocacy work in the coming year.

Komen’s Advocacy Priorities include, but not limited to:

1. Protecting federal and state funding for the National Breast and Cervical Cancer Early Detection Program (NBCCEDP), to ensure all women have access to potentially lifesaving breast cancer screening;
2. Ensuring continued federal investment in cancer research through the National Institutes of Health (NIH), National Cancer Institute (NCI) and Department of Defense (DOD), to discover and deliver the cures;
3. Requiring insurance companies to provide coverage for oral anti-cancer drugs on a basis that is no less favorable than what’s already provided for intravenously administered chemotherapy, to protect patients from high out-of-pocket costs; and
4. Expanding Medicaid coverage to ensure the availability of the full-range of breast health services to low-income women, including cancer screening, diagnostics and treatment.

In Virginia, Komen Affiliates work to inform their legislators and the wider community of the priority policy issues. Every year in February, the Affiliates join with the Virginia Breast Cancer Foundation, the American Cancer Society, the Sisters Network, and other breast cancer stakeholders for Lobby Day at the Virginia General Assembly. Meetings organized by the Virginia Breast Cancer Foundation are held with almost every Senator and Representative in the legislature. Teams of volunteers, survivors, and organization staff members share information about the importance of expanding Medicaid coverage and protecting funding for the NBCCEDP so that women will have access to breast health and breast cancer services (Priorities 1 and 4 above). In 2012, Komen worked with its partner organizations to successfully gain coverage in Virginia for oral anti-cancer drugs (Priority 3 above).

Komen Central Virginia strives to raise awareness in the community about priority public policy issues through email and social media communications with its partners and constituents. A comprehensive Campaign Handbook prepared by Komen Headquarters provides the Affiliate guidance on advancing advocacy efforts at the state level. Komen Central Virginia will work in collaboration with other community partners and survivors to further educate legislators and the public on the importance of ensuring access to quality care for all.

### **Health Systems and Public Policy Analysis Findings**

A review of the health systems in the Richmond Metropolitan Area indicates that there are ample services and support for a woman to successfully proceed through the continuum of breast cancer care. A gap in direct services was noted, however, in rural Goochland County and eastern Henrico. While adequate resources may be available, breast cancer staging and death data indicate that women are being diagnosed later and dying at a higher rate in some communities in the area.

An analysis of the Piedmont and Southside Virginia target areas revealed varying levels of access to breast cancer care due to limited providers of direct or support services. Residents of many communities must travel more than an hour to access care beyond a clinical breast exam.

Regardless of actual service availability in the three target areas, a large population of residents is unable to access care due to the lack of health care coverage. Without the expansion of Medicaid, an estimated 400,000 Virginians will continue to be uninsured (Whorley, Goren & Cassidy, 2014) and be deprived of lifesaving breast cancer care. In partnership with breast cancer stakeholder organizations, coalitions, and survivors, Komen Central Virginia will continue to work with communities and the state government towards ensuring quality care for all.

# Qualitative Data: Ensuring Community Input

## Qualitative Data Sources and Methodology Overview

To further explore the breast health and breast cancer issues highlighted by the quantitative data (e.g. late-stage diagnoses rates and death rates), qualitative data collection was utilized to provide insight into the priority communities' attitudes, beliefs, and behaviors about disparities, access to services, utilization of services, quality of care, and additional breast health and breast cancer issues (e.g. reasons behind low screening mammography percentage). In addition, the qualitative process provided the community perspective as to what is working, what is not working, and what the various barriers are that lead to gaps in access, utilization, and quality of services.

### *Methodology*

Focus groups and interviews in the three target areas were used to explore provider and key informant perspectives on vulnerable populations, access to breast care, effective education, and patient movement through the continuum of care. In Piedmont and Southside Virginia, questions were posed regarding survivorship support. By leveraging existing relationships with Komen grantees, the Virginia Department of Health, and other community partners, participants for focus groups and interviews could be more easily recruited.

Other data collection methods were considered, but not used for gathering information from individuals. The Community Profile Team did not have access to sufficient literature for a document review or enough contact information to yield an adequate survey sample size, therefore interviews and focus groups were selected as the two data collection methods. Komen Central Virginia staff and a dedicated volunteer scheduled and conducted phone interviews with health care providers and key informants, using a prepared script and a form including a list of open-ended questions to be asked. The questions were selected by the Community Profile Team. Following the phone call, the interviewers transcribed their handwritten notes into a Word document.

Komen grantees and community partners scheduled and promoted the focus groups in each target area. The Affiliate Director of Community Health Programs facilitated the discussions among breast cancer survivors and community leaders, assisted by a staff member or volunteer who typed up the comments from each session as they were made. A script and a list of open-ended questions selected by the Community Profile Team were used to guide the focus group discussions.

By using two methods of qualitative data collection that included both provider and non-provider responses, insight could be gained on questions related to access to care and delivery of services raised in the review of the quantitative data.

### *Sampling*

To determine how women were moving through the continuum of care, focus groups were held with breast cancer survivors and community informants. The goal was to conduct three focus groups of 6-12 individuals each in all three of the Affiliate target areas: Richmond Metropolitan Area, Piedmont and Southside Virginia. Komen community partners posted announcements of the focus groups and tapped into their networks to invite survivors or key informants, as

requested by the Affiliate, to participate. A light lunch or supper was offered as an incentive to attend. Roundtable discussions that did not strictly adhere to focus group methodology were held with two community coalitions and yielded valuable information from breast cancer stakeholders.

During phone interviews, health care providers and key informants shared their perspective about both patient access and health system delivery of care. The goal was to interview 12 individuals from each of the three target areas. The questions were sent to the interviewees prior to the arranged phone call. Three providers submitted typed responses to the interview questions via email rather than speak on the phone.

### *Ethics*

Prior to every interview and focus group, the interviewer or facilitator explained to the participants the purpose for collecting their responses and how it would be used. Participants were also informed that their responses would remain anonymous and their identity would not be included in the final Community Profile Report. Focus group participants were asked to provide demographic information and were assured that their name would not be associated with the form. Agreement to voluntarily participate in the data collection process was secured from each participant by asking for verbal consent before the interview and by completing a written consent form before the focus group session. Individuals' names did not appear in the typed comments from the focus group discussions. All qualitative data has been securely stored at the Komen Central Affiliate office with restricted access until proper disposal in 2019.

### **Qualitative Data Overview**

To begin to answer the questions raised during the quantitative data analysis, qualitative textual data was studied to identify themes and patterns. Affiliate staff and volunteers taking notes during the telephone interviews and focus groups provided detailed typewritten comments for examination. No electronic recording or verbatim transcription of conversations was used. All textual data was hand coded to organize and compress the data into a format that would facilitate the development of a summary. Textual data from each of the three target areas was hand coded by the same person, reviewed multiple times, and reduced to several major themes, using a code book created for the process. Qualitative analysis software was explored for coding the data, but was ultimately not used.

### ***Richmond, Virginia Metropolitan Area***

Interviews were conducted with 18 health care providers from the City of Richmond and the counties of Chesterfield, Goochland, Hanover, and Henrico. An informal focus group was held with an additional six providers who belong to the Central Virginia Breast Cancer Coalition. Four members of the Sisters Network Central Virginia shared their perspectives as breast cancer survivors in a focus group. The voice of the general population was gathered through meetings with six international lay health promoters in Henrico County and a four-member staff of an international church in Chesterfield County.

The qualitative data clearly indicated that the populations most in need of breast cancer resources were low income, uninsured, and Black/African-American women (all localities), Hispanic/Latina women (Chesterfield, Henrico, Richmond), and rural women (Goochland and Hanover). It was also noted that the Arabic community is growing in Henrico. Women from rural

communities were of greatest interest in Goochland and Hanover Counties, while those from the Piedmont Region – outside of the Richmond Metropolitan area - were noted by Chesterfield providers.

Interview and focus group participants cited the barriers to getting screened early as: a lack of knowledge of resources and importance of breast health, financial concerns, fear, and possible scheduling delays for screening appointments. These barriers may be influencing the high rate of late-stage diagnosis in the City of Richmond and the counties of Goochland, Hanover, and Henrico. Other health priorities, or delaying care, were also recognized as deterrents to women getting care. Language and cultural differences were cited as barriers to care in the counties surrounding the City of Richmond.

The health care providers interviewed were somewhat or very knowledgeable about free screenings for uninsured women and regularly referred women to the Every Woman's Life (EWL) Program. They either leveraged in-house financial assistance for their patients or referred them to other local sources. Providers indicated that some patients in the area had enrolled in the health exchange created by the Affordable Care Act, but many patients had not obtained insurance because the premiums were unaffordable and/or the enrollment process was too complicated.

The Richmond Metropolitan area appears to be replete with breast health resources and financial assistance for low income, uninsured women, but populations at risk may not be aware of the resources or the importance of breast health. The community overwhelmingly believed that the most trusted sources of health information – providers, peers, and survivors – should be deployed through churches, health departments, and other organizations to share culturally appropriate information on available breast cancer screening resources and the importance of getting screened with low income, Black/African-American, and Hispanic/Latina women. Lay health promoters were thought to be particularly effective.

All providers see non-English speaking patients, and all provide Spanish breast health literature supplied by Komen, American Cancer Society, and National Cancer Institute. Providing culturally appropriate care and literature was important to some of the respondents.

Providers believed that institutions were effective at delivering breast health services within the Center for Disease Control (CDC) guidelines, however wait times for getting an initial screening appointment varied from 24 hours to two months across institutions. All respondents believed that improving coordination of care, or patient navigation, was needed to help women proceed in a timely manner through the continuum of care. Survivors felt that navigation was important well after breast cancer treatment.

Health care providers who were interviewed suggested that limited public transportation in the three counties of Goochland, Hanover, and Henrico may be a barrier to uninsured women trying to access care at safety net providers and at VCU Massey Cancer Center. While public transportation is well-developed in the City of Richmond, many providers cited a lack of transportation as a barrier to care for city residents, as well. The three community focus groups did not identify transportation as a determinant for seeking care.

All providers agreed that continued collaboration among breast cancer organizations was key to addressing breast health. The suggestion was made for coalitions to coordinate activities so as not to duplicate efforts or overlook a particular area.

### ***Piedmont Virginia***

Interviews were conducted with four health care providers in the very rural Piedmont region of Amelia, Appomattox, Buckingham, Charlotte, Cumberland, Lunenburg, Nottoway, and Prince Edward Counties. Two of the providers were not physically located in the target area, but treated patients from that community. Repeated attempts to interview additional providers were unsuccessful. A focus group with two survivors and two providers was held at Central Virginia Community Health Center in Buckingham County. A focus group was also held with ten breast cancer survivors at the YMCA in Farmville. Eight of the survivors resided in Prince Edward County, and the other two lived in Appomattox and Charlotte Counties.

All interview and focus group participants agreed that low income women were most in need of breast health information and support. Providers felt that Black/African-American women in particular were a vulnerable population.

A lack of health resources is the predominant barrier to care in Piedmont Virginia. Few health care providers and limited financial assistance programs impact the continuum of care at all points. The absence of patient navigation and community awareness of resources results in fragmented care. These deficiencies are especially detrimental to women of low income or low educational attainment.

The health system analysis indicated that all of the counties in the Piedmont region are designated medically underserved (US Department of Health and Human Services, 2014). The qualitative data collected revealed that uninsured women are traveling over an hour to access indigent care through VCU in Richmond or UVA in Charlottesville. Women with insurance are also travelling to hospitals in Chesterfield County and the City of Lynchburg to access treatment services not available locally. Having multiple appointments scheduled on one day was important to the patients who must travel distances to access care.

The providers interviewed did not have information about whether women were moving through the continuum of breast care according to CDC timing guidelines. The survivors' responses indicated that their treatment was excellent at the hospital systems in Charlottesville, Chesterfield, and Lynchburg. All outside systems provided patient navigation, and Centra Pearson in Lynchburg offered a van for radiation patients from Farmville.

Survivors and providers cited a lack of survivor support in the area. One survivor had been given a booklet on breast cancer, and that was her only source of information during treatment. There is no formal support network for breast cancer survivors, however the YMCA in Farmville had a successful, well-attended LIVESTRONG exercise program and a small group of survivors was meeting in Appomattox to pray and share fellowship. Providers believed that patients should receive survivorship care plans, and breast cancer survivors wanted wellness information.

The providers who were interviewed were familiar with the breast health resources available in the area. Uninsured women in the Piedmont can access Komen mammograms at Centra

Southside Hospital in Farmville and through clinics in the Central Virginia Health Services network. A common theme, however, was that the financial resources available to uninsured women were inadequate. There is no EWL program in the Piedmont area; women are being referred to programs up to an hour away in the City of Charlottesville and Chesterfield County. When asked why there was no EWL program in the area, respondents said they had heard it was too much paperwork for providers.

Providers felt that uninsured patients were not enrolling in health plans under the Affordable Care Act because the premiums were not affordable and the process was complicated. The Legal Aid Society in Farmville had been very effective in helping patients enroll. Some women who had enrolled in insurance plans were discovering that diagnostic mammograms were not covered. Given the inability for lower income residents to afford health insurance and the limited supply of screening mammograms and charity care, respondents believed the capacity for local free or affordable health care should be expanded. Financial assistance, transportation, and childcare during treatment were also viewed as needs.

Interview and focus group participants believed that women lacked the knowledge of available breast health services and the importance of early detection. Educational efforts in Piedmont Virginia appeared to be limited. Through a Komen grant, the Executive Director at the Farmville free clinic has shared her personal survival story and the importance of breast health with several Black/African-American churches and other groups. Community members suggested that more outreach by providers and breast cancer survivors was needed. Focus group participants agreed that seeing someone who has been through breast cancer eases the fear of going for a mammogram, diagnostic testing, or treatment. Young women and men were mentioned as important groups to reach.

A common solution suggested for raising awareness about the importance of early detection and available screening programs was to publish information in the newspaper. The free clinic in Farmville thought their large sign on Main Street advertising “Free mammograms” (from Komen funding) was effective at getting women in for an initial screening. Other strategies included educational flyers, radio public service announcements, and Facebook posts. Respondents believed that primary care physicians and nurses should know and share information about breast health and breast cancer resources with their patients.

Having reliable transportation and/or access to gas money were believed to have an effect on whether a woman would get care. Aside from a town bus in Farmville, there is no public transportation network serving the more than 3,000 mile square area of the Piedmont region (US Census Bureau, 2000). Taxi service is also not available.

Fear of finding out was mentioned repeatedly as a barrier to care. Putting off care and/or having other priorities were also noted as deterrents to women seeking services.

### ***Southside Virginia***

Interviews were conducted with 11 health care providers and key informants across Southside Virginia. Several additional interviews were requested, but not granted. Focus group discussions were held with ten breast cancer survivors in Emporia and eight in Halifax County. A facilitated discussion was held with 20 members of the Cancer Task Force in Brunswick County.

A lack of health resources is the predominant barrier to care. Lack of health care providers, lack of knowledge of the services available to uninsured or low income women, and lack of patient navigation interrupt the continuum of care at all points. These deficiencies are especially detrimental to women of low income or low educational attainment.

The health system analysis indicated that there are limited providers and breast health services in rural Southside Virginia. The qualitative data collected from providers revealed that uninsured women are traveling one to two hours to access indigent care through VCU in Richmond or UVA in Charlottesville. Providers shared that CDC guidelines for the time between diagnosis and treatment were not being met because uninsured patients needed to travel to facilities outside of the area, often without a means of reliable transportation.

Women with insurance must also travel to access treatment services not available locally; the three hospital systems in Southside Virginia offer varying ranges of cancer treatment options and limited financial assistance. Among those interviewed, there was uncertainty about what services would be available after the acquisition of Halifax Regional Hospital by Sentara and the addition of Community Memorial Hospital to the VCU Health System based in Richmond. The providers who were interviewed were familiar with the breast health resources available in their area and regularly referred patients to free mammography programs. Uninsured women in Halifax County can access the EWL Program and Komen mammograms at Sentara Halifax Regional Hospital. Patients in Mecklenburg and Brunswick Counties receive free mammograms through the Komen grant at VCU Community Memorial Hospital and through the EWL Program at the health department. The Greensville Foundation mammogram voucher program facilitates screening for women in Emporia. A common theme, however, was that the financial resources available to uninsured women were inadequate. For example, patients in Mecklenburg were not able to access initial screening in a timely manner because of the long wait list for free Komen mammograms at VCU Community Memorial Hospital.

Providers felt that uninsured patients were not enrolling in health plans under the Affordable Care Act because the premiums were not affordable; key informants were not aware of the impact of the Act on residents. Given the inability for lower income residents to afford health insurance and the limited supply of screening mammograms and charity care, respondents believed the capacity for local financial assistance should be expanded.

Interview and focus group participants believed that women lacked the knowledge of available breast health services and the importance of early detection. Educational efforts in Southside Virginia appeared to be mainly institution-based. Community members suggested that providers and peers take information about the importance of early detection and the available screening programs out into the community where residents live and work. In Emporia, two peer education programs – the Komen education program through the YMCA and VCU's Breast Health Research Champions Program - were highlighted as effective strategies for outreach. The providers interviewed suggested that primary care physicians and nurses should know and share information about breast health and breast cancer resources with their patients. Incentives were mentioned as being effective at drawing people in to educational programming. A dominant theme of the qualitative data from Southside Virginia was the need for patient navigation. With patients traveling to multiple facilities for treatment and no navigation services

available in the three hospitals in Southside Virginia, providers felt that care was fragmented and not always timely.

Providers noted that communication with patients was sometimes difficult due to a lack of cell phone service in rural areas, lack of formal education, or differing speech patterns. The survivors and key informants did not express concern over communications.

Putting off care and/or other priorities were also noted as deterrents to women seeking care. In Emporia, respondents felt that there was a general lack of participation in available programs. Members of the Cancer Task Force in Brunswick County believed that having cancer was a stigma for some women.

## **Qualitative Data Findings**

### *Limitations of the Qualitative Data*

The benefits of conducting focus groups and key informant interviews to collect qualitative data were many. The information gathered was detailed and in-depth. Opportunities for clarification of comments and questions by the facilitator or interviewer were available. Both methods provided the Affiliate a chance to enhance or initiate relationships with providers and residents of the target communities.

Some of the possible limitations of the data collected through focus groups and key informant interviews included:

- Samples of participants used were convenient (e.g., most individuals were invited to participate by a Komen community partner organization).
- Samples of participants were too small to be representative of the community.
- Recall by the recorder of the participants' responses may have been inaccurate.
- Not all members of the target community had an equal chance of participating in the focus group and/or interview.
- Participants in the focus groups were different from those that did not participate (e.g. those that participated may have had fewer barriers than those that did not participate).

### ***Richmond, Virginia Metropolitan Area***

A review of the quantitative data and health system resources in the Richmond Metropolitan area prompted an analysis of 1.) the most vulnerable populations of women, 2.) the barriers preventing women from seeking earlier breast cancer screening, and 3.) whether all patients were proceeding through the continuum of care in a timely manner.

The following themes were identified across all data collection methods and groups - providers, survivors, and the general population:

- The populations most in need of breast cancer resources were perceived to be low income, uninsured, Black/African-American, and Hispanic/Latina.
- The primary barriers to care for women included 1.) financial concerns, 2.) a lack of knowledge of available resources and/or the importance of preventive health care, and 3.) fear or denial.
- Increasing educational outreach to vulnerable populations is needed to make patients aware of available breast cancer screening programs and the importance of early detection.

- Improving coordination of care, or patient navigation, is needed to help women proceed in a timely manner through the continuum of care.

The quantitative data and health systems review of the Richmond Metropolitan area revealed late-stage diagnosis and high death rates in an area of ample free or affordable breast cancer screening and treatment options. The qualitative analysis confirmed that the most vulnerable populations were low income, Black/African-American, and Hispanic/Latina women, shed light on possible underlying causes for late staging and deaths, and suggested improvements to reducing barriers to care. The concluding assumption is that women in the Richmond Metropolitan area are proceeding satisfactorily through the breast cancer continuum of care, but are not entering it soon enough.

### ***Piedmont Virginia***

An evaluation of the quantitative data and the health system resources in Piedmont Virginia, along with the review of a cancer needs assessment conducted in the Piedmont Health District by VCU in 2012, compelled further exploration of why women may not be entering the continuum of care and progressing through it in a timely manner.

The following common themes emerged from the interviews and focus groups:

- Low income women were identified as the population most in need of breast cancer services.
- Barriers to care included a lack of knowledge of the importance of breast health and the resources available, a lack of local providers or services, financial concerns, and fear.
- Patient navigation or care coordination is absent, but needed.
- Health care providers and breast cancer survivors were considered the most effective in delivering health information.
- Free or affordable care and survivorship support need to be expanded.

The quantitative data analysis indicated women were being diagnosed late in most counties of Piedmont Virginia, while the health system review highlighted a medically underserved area. The qualitative analysis confirmed that the large population of low income and Black/African-American women is the most in need of breast health information and services. The qualitative data collection process revealed possible causes for late staging and deaths and suggested improvements to reducing barriers to care. The concluding assumption is that women in the Piedmont Virginia region are not satisfactorily entering or staying in the breast cancer continuum of care due to a lack of local health care resources and awareness.

### ***Southside Virginia***

An evaluation of the quantitative data and the health system resources in Southside Virginia, along with the review of a cancer needs assessment conducted in Brunswick, Halifax, and Mecklenburg Counties by VCU in 2013, compelled further exploration of why women may not be entering the continuum of care and progressing through it in a timely manner.

The following themes emerged from the responses of all groups - providers, informants, and survivors:

- Low income and Black/African-American women were identified as the populations most in need of breast cancer services.

- Barriers to care included a lack of knowledge of the breast health resources available, a lack of local providers or services, a lack of transportation, and financial concerns or the lack of insurance.
- More educational outreach should be conducted within the most vulnerable and rural populations.
- Patient navigation or care coordination is absent, but needed.
- Free or affordable care options need to be expanded.

The quantitative data analysis of Southside Virginia indicated women were being diagnosed late and dying at a higher rate, while the health system review revealed three hospitals are located in the region. The qualitative analysis confirmed that the large population of low income and Black/African-American women in the four counties of Brunswick, Halifax, Mecklenburg, and Greenville/Emporia is the most vulnerable. The qualitative data collection process also hinted at possible underlying causes for late staging and deaths and suggested improvements to reducing barriers to care. The conclusion is that women in the Southside Virginia region are not satisfactorily entering or staying in the breast cancer continuum of care due to a lack of local resources and awareness.

# Mission Action Plan

## **Breast Health and Breast Cancer Findings of the Target Communities**

The Quantitative Data Report (QDR) identified priority areas for intervention based on estimates of how long it would take an area to achieve Healthy People 2020 (HP2020) objectives for breast cancer late-stage diagnosis and death rate. In the Komen Central Virginia service area, seventeen counties have been characterized as highest priority. Six of the seventeen communities are not likely to meet either the death rate or late-stage diagnosis rate HP2020 targets. Eleven of the seventeen counties and cities are not likely to meet the late-stage incidence rate HP2020. Four additional counties in the service area are characterized as high priority for intervention.

In order to narrow down the pool of possible target areas, the Central Virginia reviewed county level breast cancer statistics from the higher priority areas for intervention and grouped communities with similar demographic data. With the intention of being the most efficient stewards of resources, the Affiliate selected three target areas - the Richmond, Virginia Metropolitan Area and the regions of Piedmont and Southside Virginia - on which to focus its strategic efforts for the next four years.

In the Richmond Metropolitan Area, Richmond City and Chesterfield, Goochland, and Henrico Counties each have a late-stage diagnosis rate higher than the State of Virginia, while Henrico and Richmond have higher death rates than the state. Chesterfield and Henrico Counties have large populations of Hispanics/Latinos and foreign born; Richmond has large populations of Black/African-American, low income, uninsured, unemployed, and low educational attainment women.

According to data from the Virginia Cancer Registry, the medically underserved Piedmont Health District ranks highest in breast cancer death rates among the fourteen districts in the Komen Central Virginia service area. The Komen QDR indicates that the death rate in Prince Edward County is higher than that of Virginia. The counties of Amelia, Appomattox, Lunenburg, and Nottoway have a high rate of late-stage diagnosis. Although breast cancer data was not available for Buckingham, Charlotte, and Cumberland, these counties were included in the target area because they are demographically similar to the others. The female population in rural Piedmont Virginia is older, lower income, less insured, and less educated than the state average.

In Southside Virginia, Halifax and Mecklenburg Counties have high rates of late-stage breast cancer incidence and death. Brunswick County also has a high death rate. If the statistics for the City of Emporia and Greensville County were combined, the death rate would be similar to that of Brunswick County. This rural, medically underserved area has some of the largest Black/African-American, low income, low educational attainment populations in the Komen Central Virginia service area.

A review of the health systems and public policies affecting the three target areas was conducted to identify gaps in services. The Richmond Metropolitan Area offers many accessible, affordable screening and treatment services, yet women are being diagnosed at a

later stage and dying more often. A well-developed breast cancer coalition is available for collaboration.

In the rural communities of Piedmont and Southside Virginia, there are limited affordable breast cancer screening, treatment, and survivor support services. There are no known breast cancer coalitions in these communities, but opportunities for new partnerships and enhanced collaboration with Komen grantees exist.

Since Virginia has not opted to expand Medicaid, the uninsured population throughout the state remains high. A health insurance exchange has been established to provide coverage to the uninsured, however diagnostic mammograms are not covered under the plans.

The quantitative analysis, coupled with the findings from the health systems analysis, elicited questions about whether women in each target area were proceeding satisfactorily through the breast cancer continuum of care (CoC). A qualitative analysis of health care provider and community member perspectives would reveal more information about the most vulnerable populations, access to care, effective educational efforts, gaps in the CoC, and survivor support.

Qualitative data from interviews and focus groups conducted in the three target areas revealed several major themes. In the Richmond Metropolitan Area, there appears to be a lack of knowledge among women about the importance of breast care and the available, affordable services. Most health care providers felt that once a woman entered the breast cancer CoC, she advanced in a timely manner. Transportation for the uninsured within the suburbs and from the surrounding counties to services in the City of Richmond was cited as a barrier to care. Black/African-American, Hispanic, foreign born, low income, and uninsured women were considered most at risk for not receiving breast care.

In a landscape of limited educational efforts and health care services, the communities of Piedmont and Southside Virginia indicated that there is a lack of knowledge among residents and some health care providers of the importance of breast care and available, affordable services. Because women must often travel one to two hours from their homes to access affordable screening and/or specialty treatment services, transportation was a notable barrier to care. Fragmented care prompted key informants to cite patient navigation as a critical need for these two rural communities. Providers and focus group participants believed that low income and Black/African-American women were the most vulnerable populations.

All target area communities shared that some women were enrolling in the new health insurance exchange, but more often it was noted that Virginians found the premiums “too high” or the process “too confusing.” Financial concerns and the fear of being diagnosed with breast cancer were also common themes across all target areas.

### **Mission Action Plan**

After a comprehensive evaluation of the data, prioritization of needs, and consideration of the capacity of the Central Virginia to impact breast cancer, a mission action plan was developed for each of the three target areas. The plans are illustrated in Figures 5.1, 5.2, and 5.3.

## Mission Action Plan for the Richmond Metropolitan Area

The late-stage diagnosis rates for breast cancer in Richmond City and in Chesterfield, Goochland, and Henrico Counties exceed the rate for Virginia; Richmond and Henrico have higher death rates than that of the state. Large populations of Black/African-American, low income, and low educational attainment women in Richmond and large populations of Latinas and foreign born residents in Chesterfield and Henrico may not be aware of the many available, affordable breast care resources in the area. Utilization of breast cancer screening services is a concern.

### Priority 1:

In an effort to reduce the incidence of breast cancer late-stage diagnosis and deaths, increase the availability of education programs and screening and diagnostic mammography for uninsured women in the Richmond Metropolitan Area.

Objective 1: Beginning with the FY16 Request for Application, include Affiliate grant funding priority for screening and diagnostic mammograms for uninsured women in the Richmond Metropolitan area, especially those of Black/African-American and foreign descent.

Objective 2: In collaboration with community partners, conduct one Komen Breast Health Basics program in Spanish in the City of Richmond and in each of the counties of Chesterfield and Henrico by 2018.

### Priority 2:

Increase culturally appropriate breast cancer education for Blacks/African-Americans and foreign born women in an effort to raise awareness of the importance of breast care and the availability of affordable breast health resources.

Objective 1: Beginning with the FY16 Request for Application, include Affiliate grant funding priority for evidence-based, culturally appropriate educational programs for Blacks/African-Americans and foreign born residents in the Richmond Metropolitan Area.

Objective 2: In collaboration with community partners, provide or support at least one evidence-based, peer education program in the City of Richmond and in each of the counties of Chesterfield and Henrico by 2018.

**Figure 5.1.** Mission Action Plan - Richmond Metropolitan Area

# Mission Action Plan for Piedmont Virginia

Breast cancer statistics for Piedmont Virginia reveal high rates of death from breast cancer and late-stage diagnosis in an area of limited affordable screening and treatment. A large population of low income, uninsured, and low educational attainment women live in this rural, medically underserved region. Utilization of breast cancer screening services and access to treatment are concerns.

## Priority 1:

In an effort to reduce the incidence of breast cancer late-stage diagnosis and deaths, increase the availability of education programs and screening and diagnostic mammography for uninsured women in Piedmont Virginia.

Objective 1: Beginning with the FY16 Request for Application, include Affiliate grant funding priority for screening and diagnostic mammograms for uninsured women in Piedmont Virginia.

Objective 2: In collaboration with community partners, conduct one Komen Breast Health Basics program in Piedmont Virginia by 2018.

## Priority 2:

Improve patient navigation through the breast cancer continuum of care in an effort to reduce the incidence of breast cancer late-stage diagnosis and deaths.

Objective 1: Beginning with the FY16 Request for Application, establish Affiliate grant funding priority for educational outreach, case management, and survivor support in Piedmont Virginia.

Objective 2: In collaboration with community partners, provide three evidence-based peer education programs in the Piedmont target area by FY17.

Objective 3: By 2018, in collaboration with a community partner, provide one education program - preferably with continuing medical education (CME) credit - to health care providers in Piedmont Virginia regarding breast cancer screening guidelines and available resources (e.g., Every Woman's Life Programs in other areas).

**Figure 5.2.** Mission Action Plan – Piedmont Virginia

## Mission Action Plan for Southside Virginia

Breast cancer statistics for Southside Virginia reveal high rates of breast cancer death and late-stage diagnosis in an area of limited affordable screening and treatment. There are large populations of Black/African-American, low income, and less educated women living in the target area. Utilization of screening services and access to treatment are concerns.

### Priority 1:

In an effort to reduce the incidence of breast cancer late-stage diagnosis and deaths, increase the availability of education programs and screening and diagnostic mammography for uninsured women in Southside Virginia.

Objective 1: Beginning with the FY16 Request for Application, include Affiliate grant funding priority for screening and diagnostic mammograms for uninsured women in Southside Virginia.

Objective 2: In collaboration with community partners, conduct one Komen Breast Health Basics program in each of the counties of Brunswick, Halifax, and Mecklenburg by 2017.

### Priority 2:

Improve patient navigation through the breast cancer continuum of care in an effort to reduce the incidence of breast cancer late-stage diagnosis and deaths.

Objective 1: Beginning with the FY16 Request for Application, establish Affiliate grant funding priority for educational outreach, case management, and survivor support in Southside Virginia.

Objective 2: In collaboration with community partners, provide one evidence-based peer education program in each of the counties of Halifax and Mecklenburg by 2017. Continue to support existing efforts in Emporia/Greenville.

Objective 3: By 2018, in collaboration with community partners, provide one education program - preferably with continuing medical education (CME) credits - to health care providers in Southside Virginia regarding breast cancer screening guidelines and available resources (e.g., Every Woman's Life Program).

**Figure 5.3.** Mission Action Plan – Southside Virginia

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